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SEMIANNUAL MONITORING REPORT

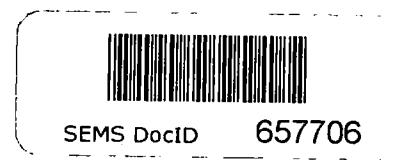
**CIBA-GEIGY FACILITY
180 MILL STREET
CRANSTON, RHODE ISLAND**

MONITORING RESULTS

FOR

JANUARY - JUNE 2000

**CIBA SPECIALTY CHEMICALS CORPORATION
TOMS RIVER, NEW JERSEY 08754**



Ciba

July 24, 2000

Mr. Frank Battaglia (2 copies)
USEPA Region I
Office of Site Remediation and Restoration (HBT)
JFK Federal Building
Boston, MA 02203

RE: Semiannual Monitoring Report for the period January - June 2000
Ciba Specialty Chemicals, 180 Mill Street, Cranston, RI 02905
EPA ID RID001194323

Dear Mr. Battaglia:

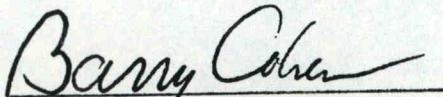
Please find enclose a report summarizing the results of the monitoring well system for the former Ciba-Geigy facility located at 180 Mill Street, Cranston, RI. Samples of 12 monitoring wells were analyzed for a suite of chemical compounds to evaluate the groundwater contamination at the facility.

The results of the April 2000 chemical sampling show no significant change in chemical concentrations for chemicals of concern, which include the five Media Protection Compounds.

Ciba installed a third groundwater capture well to complement the two existing capture wells that were operating since 1995. Monitoring results for the first quarter of 2000 demonstrate that 100% hydraulic capture at the bulkhead is achieved with the third well and a report is in preparation for submittal by August 2000. The report justifies and concludes that capture is complete along the entire bulkhead.

If you have questions or need additional information, please contact me at 732 914-2537 or fax 732 914-2909.

Sincerely,



Barry Cohen
Projector Coordinator

Monthly Report Distribution List

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Dayna Jordan
Ciba Specialty Chemicals Corp.
Environmental Matters Agreement
Tarrytown, NY

REC'D 7-26-00
F.B.I.

Ciba

SEMIANNUAL MONITORING REPORT

CIBA-GEIGY FACILITY
180 MILL STREET
CRANSTON, RHODE ISLAND

MONITORING RESULTS

FOR

JANUARY - JUNE 2000

CIBA SPECIALTY CHEMICALS CORPORATION
TOMS RIVER, NEW JERSEY 08754

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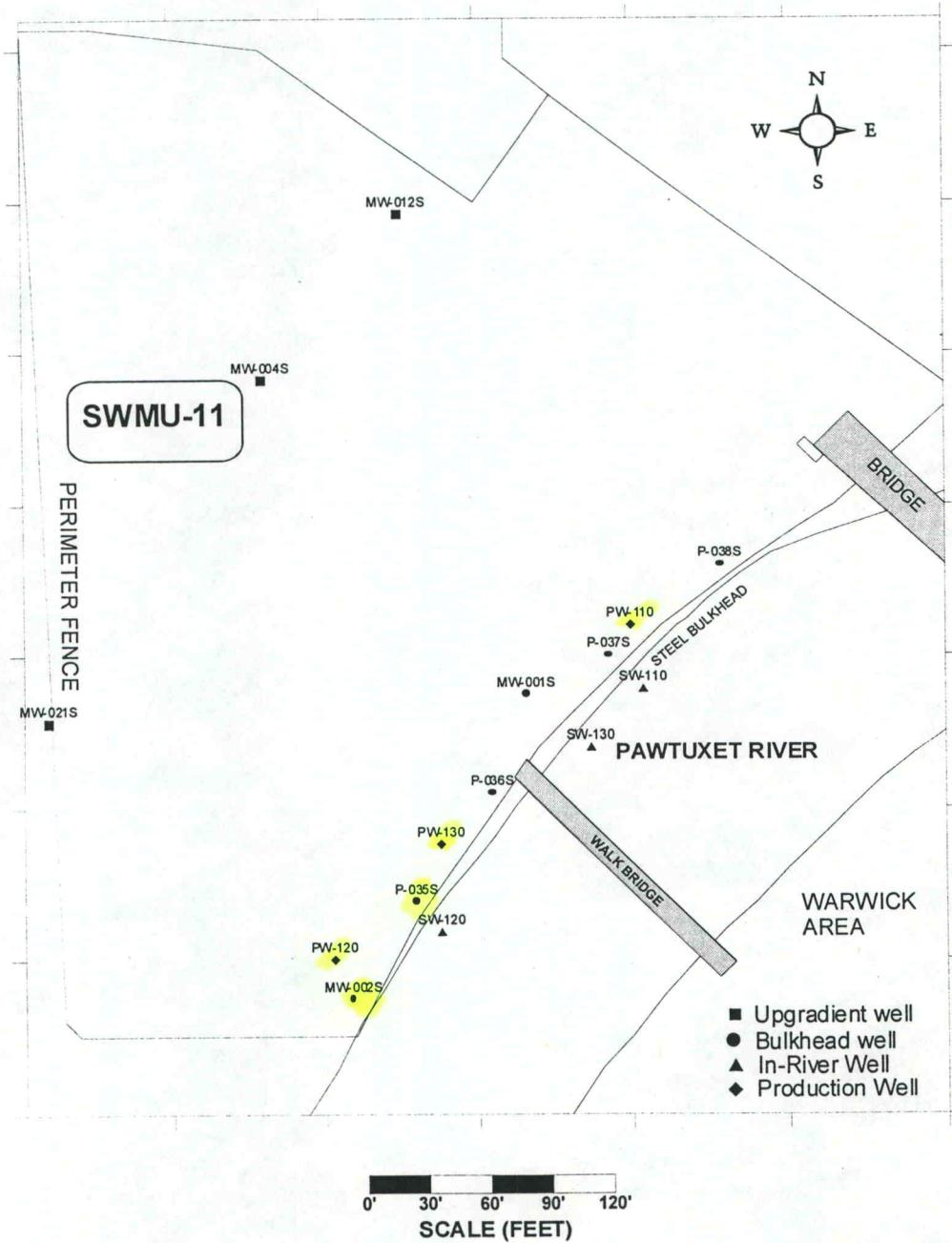
LIST OF APPENDICES

- Appendix A Tabulated Groundwater Elevation Data and Potentiometric contours
- Appendix B Certificate of Analysis - R. I. Analytical
- Appendix C Time-Series Graphs and Data for Upgradient Wells
- Appendix D Time-Series Graphs and Data for Bulkhead Wells
- Appendix E Time-Series Graphs and Data for In-River Wells

WELL LOCATION MAP

CIBA SPECIALTY CHEMICALS CORPORATION (FORMERLY CIBA-GEIGY CORPORATION) CRANSTON, RI FACILITY FORMER PRODUCTION AREA

Chemical Well Monitoring Network



1.0 SUMMARY

On June 16, 1989, Ciba-Geigy Corporation (now Ciba Specialty Chemicals Corporation (Ciba)) entered into an Administrative Order on Consent (AOC) with the USEPA. The AOC required Ciba to conduct a Corrective Measures Study (CMS) and propose Media Protection Standards (MPSs) for the former manufacturing facility at Cranston, RI (the Facility). MPSs for five chemicals of concern (COC) were developed, see Table 1, and is the focus of the semiannual monitoring at the Facility.

The semiannual monitoring episode for the first half of 2000 was performed on April 19-20, 2000, at which time 12 wells were sampled and analyzed by Rhode Island Analytical for a suite of chemicals including the COC. Semiannual water level readings were recorded on April 12, 2000.

A third Production Well, PW-130, began operating on December 20, 1999, and is presently pumping at the nominal capacity of 23 GPM. The new well complements the two existing capture wells to achieve hydraulic capture of the plume along the bulkhead in the former Production Area. A capture analysis is presented in a separate document.

The results of the April 2000 sampling show no significant change in chemical concentrations for COC at 10 of the 12 wells over the 4 years since Ciba has operated the Groundwater Extraction and Treatment System (GETS) at the Facility. Wells MW-002S and P035S along the southern bulkhead are significantly higher in contamination, which may be due to new pumping well PW-130, but will require second round confirmation.

Since the previous monitoring episode performed in September 1999, MPS exceedances has increased from 3 to 5, however these exceedances are now in only 2 wells compared to the 3 wells of the 12 wells in September 1999.

The next monitoring episode will be in September 2000.

2.0 OBJECTIVE

The objective of the monitoring program is to evaluate the GETS on controlling releases to the Pawtuxet River while long-term corrective measures to areas of concern are being evaluated, specifically SWMU-11.

3.0 INTRODUCTION

In August 1996, Ciba submitted to the USEPA a Pawtuxet River Corrective Measures Study (PRCMS) Report. In the PRCMS report (Section 3.5.1, page 3-12) Ciba proposed to measure groundwater elevations in the former Production Area quarterly during the first two years following startup of the groundwater capture system and then semiannually until the groundwater capture and pretreatment system were shutdown. Data collected during hydraulic monitoring from 23 wells are evaluated periodically to verify that the shallow contaminated groundwater in the former Production Area is hydraulically controlled from discharging into the Pawtuxet River.

Inclusive of the PRCMS Ciba also proposed to monitor groundwater quality at the Facility. Groundwater is sampled semiannually from 12 selected overburden-monitoring wells to evaluate changes in groundwater quality, specifically in COC.

4.0 MEDIA PROTECTION STANDARDS

During the RCRA Facility investigation an MPS¹ was developed for each of five chemical contaminants detected in the Production Area groundwater. These contaminants and their respective MPSs are summarized in Table 1 and discussed in detail in the PRCMS Report, Section 2.4.1.

Table 1
Media Protection Standards
CIBA-GEIGY, Cranston R.I. Facility
Former Production Area

Compound	MPS Concentration (ppb)
1,2-dichlorobenzene	94
chlorobenzene	1700
ortho-chlorotoluene	1500
toluene	1700*
xlenes	76

* Rhode Island Groundwater Objective GB - Groundwater classified as GB has been designated by the Rhode Island Department of Environmental Management (RIDEM) as not suitable for public or private drinking water use.

¹ From the Public Health and Environmental Risk Evaluation (PHERE) that concluded the sole receptor impacted by contaminated groundwater were benthic invertebrates in the shallow sediments of the Pawtuxet River.

5.0 SEMIANNUAL MONITORING RESULTS

This report summarizes the groundwater results for the COC sampling that was performed April 19-20, 2000. The COC data are compared to previous compliance sampling rounds dating back to March 1996, when semiannual monitoring activities were initiated. Also in this report are results of the hydraulic monitoring performed on April 12, 2000. The hydraulic results are compared to pre-pumping baseline conditions dated September 30, 1993.

5.1 Hydraulic Monitoring

Piezometric contours for the overburden aquifer were created from data collected on April 12, 2000, from 23 groundwater monitoring wells and 3 capture wells using Golden Software, Inc., SURFER FOR WINDOWS, Version 5.01 software.

The tabulated groundwater elevation data and the associated potentiometric contours, Figures 1 and 2, are included in Appendix A.

The kriging contour algorithm was used as a best fit method of approximating the directional groundwater flow pattern. The baseline results in Figure 1 show groundwater flow from northwest to southeast to the Pawtuxet River. Figure 2 shows the effect of the 3 extraction wells on the groundwater flow. Well PW-110 north of the walk bridge shows groundwater capture at present pumping capacity 46 GPM; the second and third capture wells, PW-120 (3 GPM) and PW-130 (23 GPM), are capturing the plume along the bulkhead south of the walk bridge. Together the 3 wells are capturing 100% of the groundwater passing by the bulkhead to the Pawtuxet River.

The above results are discussed in detail in the report "Capture Zone Analysis, Former Production Area, Cranston, Rhode Island" to be available August 2000. The report justifies and concludes that capture is complete along the entire bulkhead.

5.2 Chemicals of Concern Monitoring

Twelve wells were sampled as part of the semiannual sampling episode. The wells are divided into three main groups; shown on the Location Map in Section iii of this report. The COC analytical results are tabulated and included in Table 2 at the end of this section.

Discussion of the COC results:

There are 6 bulkhead wells and 4 are meeting the MPS numbers. The exceptions are wells MW-002S and P-035s located at the south end of the bulkhead. Both wells have exceedances in 1,2-

dichlorobenzene (1340 ppb and 4580 ppb) and chlorobenzene (12000 ppb and 77000 ppb) respectively. The high numbers may be the result of new capture well PW-130 drawing contamination by these wells, but second round confirmation in September will be necessary. Well MW-002S also has an exceedance in xylenes (120 ppb vs. 76 ppb MPS). The graphs (Appendix D) of these 2 wells confirm that contamination for this recent episode is much higher than past evaluations, while the 4 remaining bulkhead wells are showing "normal" contamination when compared to past values.

Three wells are designated upgradient to the bulkhead wells and show no exceedances in any MPS. This is an improvement compared to the last sampling event when two of the wells had exceedances in either o-chlorotoluene or xylenes.

None of the three In-River wells showed any exceedance for any MPS. In fact, since semiannual monitoring was initiated in March 1996, the 3 In-River wells have not exceeded any MPS for any of the COC.

Table 2

**Monitoring Results for April 20, 2000
Chemicals Of Concern
(as ppb)**

Well Location	Well Number	MPS	94 1,2-Dichloro-Benzene	1700 Chlorobenzene	1500 o-Chlorotoluene	1700 Toluene	76 Xylenes
Upgradient	MW-004S		74	20 U	20 U	84	20 U
	MW-012S		1 U	1 U	1 U	1 U	1
	MW-021S		40 U	40 U	40 U	40 U	40 U
Bulkhead	MW-001S		40 U	40 U	40 U	40 U	40 U
	MW-002S		1340	12000	150	830	120
	P-035S		4580	77000	300	160	56
	P-036S		1 U	290	1 U	1 U	1 U
	P-037S		1 U	460	5	1 U	1 U
	P-038S		1 U	1 U	1 U	1 U	1 U
In-River	SW-110		47	20 U	91	380	20 U
	SW-120		1 U	67	1 U	1 U	1 U
	SW-130		1	10	30	1 U	1

U = Nondetect with detection limit given

J = Estimated value

MPS Exceedance

6.0 DISCUSSION OF RESULTS

The September 1999, Certificate of Analysis by R.I. Analytical is included in Appendix B. The cumulative results from 1996 to the present for 12 wells and 5 COC are included as Tables 3, 4, and 5 in Appendices C, D, and E respectively. The cumulative results of each COC are plotted as Time-Series graphs for a better perception of trends, if any, over the sampling history since the inception of the groundwater extraction system in September 1995. These plots are also found in the respective Appendices C, D, and E.

A review of upgradient wells shows mostly non-detect for the COC.

Trends in concentration are not apparent at the 6 bulkhead wells (Table 4, Appendix D). The MPSs are being met in all but wells MW-002S and P-35S where concentrations 1,2-dichlorobenzene and chlorobenzene were unusually high in this sampling episode. The two wells are subject to the influence of new capture well 130 which effect the water matrix at these wells. Second round confirmation will be necessary to establish any conclusion to the levels of contamination observed.

The good news remains in the 3 In-River wells (Table 5, Appendix E) where most of the analytical is nondetect in COC. The contamination most noticeable is chlorobenzene and o-chlorotoluene, but the concentrations are decreasing in these wells.

7.0 CONCLUSION

Groundwater quality as measured by the exceedance in MPSs for groundwater monitoring in the former Production Area has improved over time. Ciba has established 100% hydraulic capture of groundwater passing by the bulkhead to the Pawtuxet River with the presence of new capture well PW-130. The hydraulic capture is discussed in the attached report and is apparent in Figure 2, Appendix A, Potentiometric Surface Map for April 12, 2000.

The next surface water sampling of the river is scheduled for September 2000.

APPENDIX A
TABULATED
GROUNDWATER ELEVATION DATA
AND
POTENIOMETRIC CONTOURS

**CIBA SPECIALTY CHEMICALS CORPORATION
(FORMERLY CIBA-GEIGY CORPORATION)**

180 MILL STREET

CRANSTON, RI

GROUNDWATER MONITORING

April 12, 2000

September 30, 1993

MONITORING WELL	TOC MSL FEET	TOC TO WATER FEET	GW ELEVATION MSL FEET	GW ELEVATION MSL FEET
PW-110	15.72	19.70	-3.98	NA
PW-120	14.25	17.65	-3.4	NA
PW-130	16.59	17.66	-1.07	NA
MW-001S	15.04	7.71	7.33	9.39
MW-002S	14.46	7.61	6.85	9.21
MW-003S	16.61	7.52	9.09	7.96
MW-004S	21.29	10.22	11.07	10.72
MW-010S	22.62	10.98	11.64	11.34
MW-012S	22.54	11.21	11.33	10.54
MW-013S	18.44	9.17	9.27	9.83
MW-020S	21.94	10.07	11.87	11.53
MW-022S	16.87	6.94	9.93	9.63
MW-023S	20.71	11.60	9.11	9.41
MW-024S	21.04	9.63	11.41	10.89
MW-034S	18.85	8.04	10.81	10.4
P-001S	16.41	9.34	7.07	9.17
P-002S	13.85	6.92	6.93	8.38
P-003S	15.45	7.38	8.07	7.09
P-004S	19.92	8.31	11.61	11.07
P-005S	21.18	10.73	10.45	10.68
P-006S	23.62	12.57	11.05	10.39
P-034S	17.15	7.04	10.11	10.12
P-035S	15.32	9.02	6.30	8.51
P-036S	15.91	9.37	6.54	8.62
P-037S	15.69	10.23	5.46	8.96
P-038S	16.19	7.92	8.27	8.74

NA - Not Available

Figure 1

CIBA SPECIALTY CHEMICALS CORPORATION
CRANSTON, RI FACILITY
FORMER PRODUCTION AREA

Pre-Pump & Treat Potentiometric Surface Map
September 30, 1993

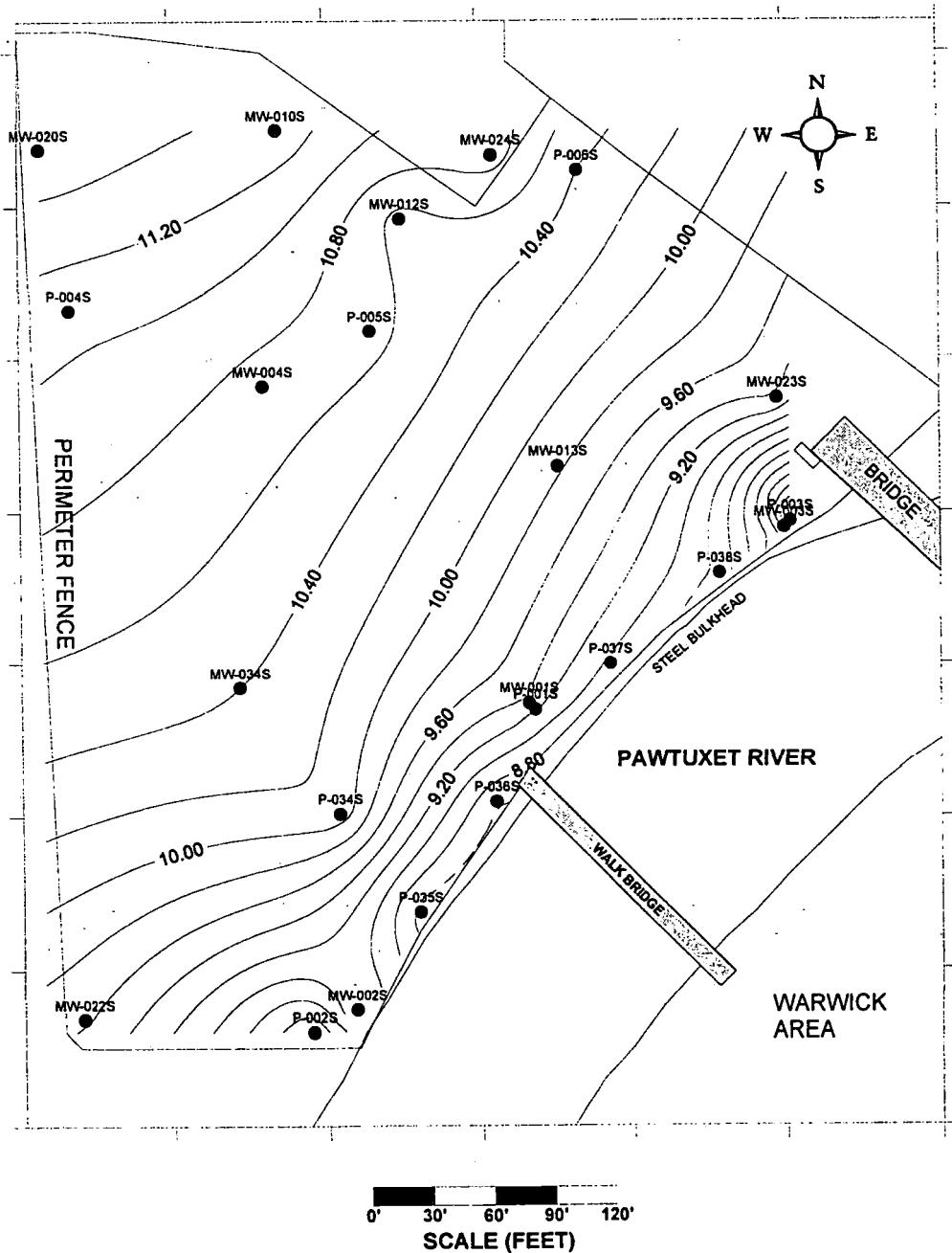
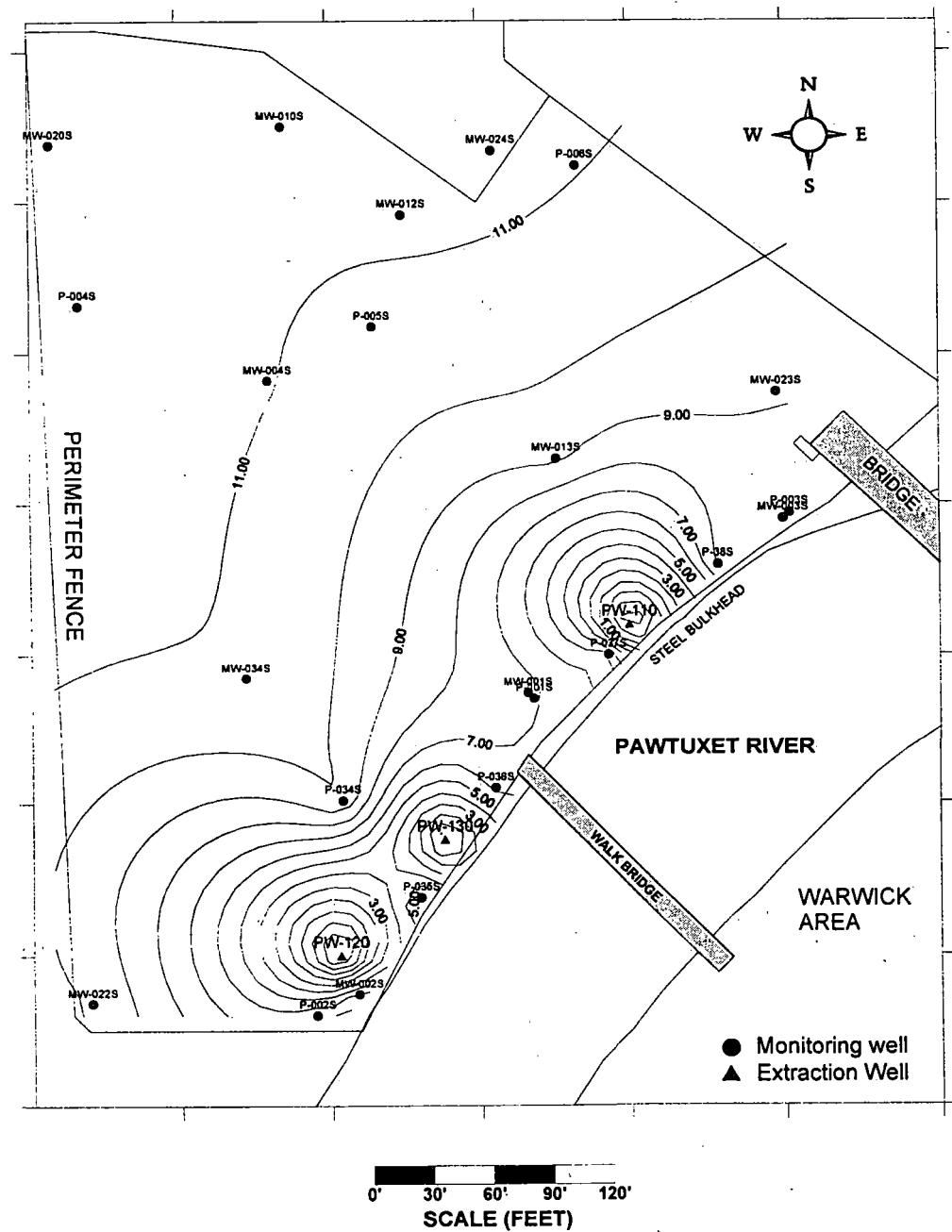


Figure 2

CIBA SPECIALTY CHEMICALS CORPORATION
CRANSTON, RI FACILITY
FORMER PRODUCTION AREA

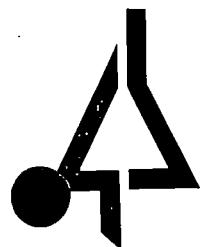
Potentiometric Surface Map
April 12, 2000



APPENDIX B

CERTIFICATE OF ANALYSIS

R. I. ANALYTICAL



R.I. Analytical

Specialists in Environmental Services

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.
Attn: Mr. Barry Cohen
Environmental Building #743
Route 37 West
Toms River, NJ 08754

Date Received: 4/20/00
Date Reported: 5/09/00
P.O. #: T0091248
Work Order #: 0004-04616

DESCRIPTION: CIBA GEIGY SITE ON MILL ST., CRANSTON-COLLECTED BY RIAL

Subject sample(s) has/have been analyzed by our laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies. The specific methodologies are listed in the methods column of the Certificate Of Analysis.

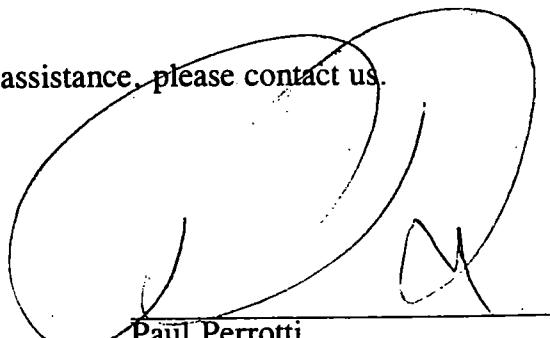
Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844, NY-11726

If you have any questions regarding this work, or if we may be of further assistance, please contact us.

Approved by:

James E. Mich
Vice President

enc: Chain of Custody



Paul Perrotti
Data Reporting Manager

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 001

SAMPLE DESCRIPTION: MW-02S GRAB 04/19/00 @1000

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	6.9		SU	EPA 150.1	4/19/00 10:00	JIB
TEMPERATURE (field)	51.2		F	EPA 170.1	4/19/00 10:00	JIB
SPECIFIC CONDUCTANCE	751	1	uMHOS/CM	EPA 120.1	4/19/00 10:00	JIB
Dissolved Oxygen	<1.0	1.0	mg/l	EPA 360.1	4/19/00 10:00	JIB
Volatile Organic Compounds						
chloromethane	<100	100	ug/l	SW-846 8240	5/03/00 3:52	JL
bromomethane	<100	100	ug/l	SW-846 8240	5/03/00 3:52	JL
vinyl chloride	390	10	ug/l	SW-846 8240	5/03/00 3:52	JL
dichlorodifluoromethane	<100	100	ug/l	SW-846 8240	5/03/00 3:52	JL
chloroethane	<100	100	ug/l	SW-846 8240	5/03/00 3:52	JL
methylene chloride	<50	50	ug/l	SW-846 8240	5/03/00 3:52	JL
trichlorofluoromethane	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
1,1-dichloroethylene	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
1,1-dichloroethane	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
trans-1,2-dichloroethylene	180	10	ug/l	SW-846 8240	5/03/00 3:52	JL
cis-1,2-dichloroethylene	25000	10	ug/l	SW-846 8240	5/03/00 3:52	JL
chloroform	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
1,2-dichloroethane	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
1,1,1-Trichloroethane	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
carbon tetrachloride	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
bromodichloromethane	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
1,2-dichloropropane	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
cis-1,3-dichloropropylene	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
trichloroethylene	10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
trans-1,3-dichloropropylene	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
1,1,2-Trichloroethane	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
Dibromochloromethane	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
Bromoform	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
Tetrachloroethylene	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
1,1,2,2-Tetrachloroethane	<10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
Chlorobenzene	12000	10	ug/l	SW-846 8240	5/03/00 3:52	JL
2-chloroethyl vinyl ether	<20	20	ug/l	SW-846 8240	5/03/00 3:52	JL
dichlorobenzenes	1400	10	ug/l	SW-846 8240	5/03/00 3:52	JL
benzene	91	10	ug/l	SW-846 8240	5/03/00 3:52	JL
toluene	830	10	ug/l	SW-846 8240	5/03/00 3:52	JL
ethylbenzene	22	10	ug/l	SW-846 8240	5/03/00 3:52	JL
xylenes	120	10	ug/l	SW-846 8240	5/03/00 3:52	JL
acetone	<100	100	ug/l	SW-846 8240	5/03/00 3:52	JL
carbon disulfide	<50	50	ug/l	SW-846 8240	5/03/00 3:52	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 001

MW-02S GRAB 04/19/00 @1000

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	< 100	100	ug/l	SW-846 8240	5/03/00 3:52	JL
vinyl acetate	< 500	500	ug/l	SW-846 8240	5/03/00 3:52	JL
4-Methyl-2-pentanone(MIBK)	< 500	500	ug/l	SW-846 8240	5/03/00 3:52	JL
2-hexanone	< 500	500	ug/l	SW-846 8240	5/03/00 3:52	JL
Styrene	< 10	10	ug/l	SW-846 8240	5/03/00 3:52	JL
O-chlorotoluene	150	10	ug/l	SW-846 8240	5/03/00 3:52	JL
MTBE	< 20	20	ug/l	SW-846 8240	5/03/00 3:52	JL
Surrogates			RANGE	SW-846 8240	5/03/00 3:52	JL
Dibromofluoromethane	99		86-118%	SW-846 8240	5/03/00 3:52	JL
Toluene-D8	96		88-110%	SW-846 8240	5/03/00 3:52	JL
Bromofluorobenzene	106		86-115%	SW-846 8240	5/03/00 3:52	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

Increased detection limit due to sample matrix.

1,4-Dichlorobenzene- 18 ug/l

1,2-Dichlorobenzene- 1340 ug/l

1,3-Dichlorobenzene- < 10 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Approved by:
R.I. Analytical

Ciba Specialty Chemicals Corp.
Date Received: 4/20/00
Work Order # 0004-04616

Sample #: 002

SAMPLE DESCRIPTION: SW-120 GRAB 04/19/00 @1045

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	7.1		SU	EPA 150.1	4/19/00 10:45	JIB
TEMPERATURE (field)	49.7		F	EPA 170.1	4/19/00 10:45	JIB
SPECIFIC CONDUCTANCE	355	1	uMHOS/CM	EPA 120.1	4/19/00 10:45	JIB
Dissolved Oxygen	1.8	1.0	mg/l	EPA 360.1	4/19/00 10:45	JIB
Volatile Organic Compounds						
chloromethane	< 10	10	ug/l	SW-846 8240	5/03/00 4:36	JL
bromomethane	< 10	10	ug/l	SW-846 8240	5/03/00 4:36	JL
vinyl chloride	13	1	ug/l	SW-846 8240	5/03/00 4:36	JL
dichlorodifluoromethane	< 10	10	ug/l	SW-846 8240	5/03/00 4:36	JL
chloroethane	< 10	10	ug/l	SW-846 8240	5/03/00 4:36	JL
methylene chloride	< 5	5	ug/l	SW-846 8240	5/03/00 4:36	JL
trichlorofluoromethane	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
1,1-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
1,1-dichloroethane	2	1	ug/l	SW-846 8240	5/03/00 4:36	JL
trans-1,2-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
cis-1,2-dichloroethylene	2	1	ug/l	SW-846 8240	5/03/00 4:36	JL
chloroform	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
1,2-dichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
1,1,1-Trichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
carbon tetrachloride	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
bromodichloromethane	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
1,2-dichloropropane	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
cis-1,3-dichloropropylene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
trichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
trans-1,3-dichloropropylene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
1,1,2-Trichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
Dibromochloromethane	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
Bromoform	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
Tetrachloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
1,1,2,2-Tetrachloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
Chlorobenzene	67	1	ug/l	SW-846 8240	5/03/00 4:36	JL
2-chloroethyl vinyl ether	< 2	2	ug/l	SW-846 8240	5/03/00 4:36	JL
dichlorobenzenes	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
benzene	1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
toluene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
ethylbenzene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
xylenes	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
acetone	< 10	10	ug/l	SW-846 8240	5/03/00 4:36	JL
carbon disulfide	< 5	5	ug/l	SW-846 8240	5/03/00 4:36	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 002

SW-120 GRAB 04/19/00 @1045

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	< 10	10	ug/l	SW-846 8240	5/03/00 4:36	JL
vinyl acetate	< 50	50	ug/l	SW-846 8240	5/03/00 4:36	JL
4-Methyl-2-pentanone(MIBK)	< 50	50	ug/l	SW-846 8240	5/03/00 4:36	JL
2-hexanone	< 50	50	ug/l	SW-846 8240	5/03/00 4:36	JL
Styrene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
O-chlorotoluene	< 1	1	ug/l	SW-846 8240	5/03/00 4:36	JL
MTBE	< 2	2	ug/l	SW-846 8240	5/03/00 4:36	JL
Surrogates			RANGE	SW-846 8240	5/03/00 4:36	JL
Dibromofluoromethane	95		86-118%	SW-846 8240	5/03/00 4:36	JL
Toluene-D8	94		88-110%	SW-846 8240	5/03/00 4:36	JL
Bromofluorobenzene	107		86-115%	SW-846 8240	5/03/00 4:36	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- < 1 ug/l

1,2-Dichlorobenzene- < 1 ug/l

1,3-Dichlorobenzene- < 1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 003

SAMPLE DESCRIPTION: P-35S GRAB 04/19/00 @1110

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	7.0		SU	EPA 150.1	4/19/00 11:10	JIB
TEMPERATURE (field)	48.6		F	EPA 170.1	4/19/00 11:10	JIB
SPECIFIC CONDUCTANCE	594	1	uMHOS/CM	EPA 120.1	4/19/00 11:10	JIB
Dissolved Oxygen	<1.0	1.0	mg/l	EPA 360.1	4/19/00 11:10	JIB
Volatile Organic Compounds						
chloromethane	<100	100	ug/l	SW-846 8240	5/03/00 8:23	JL
bromomethane	<100	100	ug/l	SW-846 8240	5/03/00 8:23	JL
vinyl chloride	410	10	ug/l	SW-846 8240	5/03/00 8:23	JL
dichlorodifluoromethane	<100	100	ug/l	SW-846 8240	5/03/00 8:23	JL
chloroethane	<100	100	ug/l	SW-846 8240	5/03/00 8:23	JL
methylene chloride	<50	50	ug/l	SW-846 8240	5/03/00 8:23	JL
trichlorofluoromethane	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
1,1-dichloroethylene	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
1,1-dichloroethane	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
trans-1,2-dichloroethylene	39	10	ug/l	SW-846 8240	5/03/00 8:23	JL
cis-1,2-dichloroethylene	2800	10	ug/l	SW-846 8240	5/03/00 8:23	JL
chloroform	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
1,2-dichloroethane	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
1,1,1-Trichloroethane	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
carbon tetrachloride	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
bromodichloromethane	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
1,2-dichloropropane	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
cis-1,3-dichloropropylene	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
trichloroethylene	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
trans-1,3-dichloropropylene	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
1,1,2-Trichloroethane	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
Dibromochloromethane	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
Bromoform	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
Tetrachloroethylene	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
1,1,2,2-Tetrachloroethane	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
Chlorobenzene	77000	10	ug/l	SW-846 8240	5/03/00 8:23	JL
2-chloroethyl vinyl ether	<20	20	ug/l	SW-846 8240	5/03/00 8:23	JL
dichlorobenzenes	4600	10	ug/l	SW-846 8240	5/03/00 8:23	JL
benzene	26	10	ug/l	SW-846 8240	5/03/00 8:23	JL
toluene	160	10	ug/l	SW-846 8240	5/03/00 8:23	JL
methylbenzene	15	10	ug/l	SW-846 8240	5/03/00 8:23	JL
xylenes	56	10	ug/l	SW-846 8240	5/03/00 8:23	JL
acetone	<100	100	ug/l	SW-846 8240	5/03/00 8:23	JL
carbon disulfide	<50	50	ug/l	SW-846 8240	5/03/00 8:23	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 003

P-35S GRAB 04/19/00 @1110

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	<100	100	ug/l	SW-846 8240	5/03/00 8:23	JL
vinyl acetate	<500	500	ug/l	SW-846 8240	5/03/00 8:23	JL
4-Methyl-2-pentanone(MIBK)	<500	500	ug/l	SW-846 8240	5/03/00 8:23	JL
2-hexanone	<500	500	ug/l	SW-846 8240	5/03/00 8:23	JL
Styrene	<10	10	ug/l	SW-846 8240	5/03/00 8:23	JL
O-chlorotoluene	300	10	ug/l	SW-846 8240	5/03/00 8:23	JL
MTBE	<20	20	ug/l	SW-846 8240	5/03/00 8:23	JL
Surrogates			RANGE	SW-846 8240	5/03/00 8:23	JL
Dibromofluoromethane	98		86-118%	SW-846 8240	5/03/00 8:23	JL
Toluene-D8	96		88-110%	SW-846 8240	5/03/00 8:23	JL
Bromofluorobenzene	103		86-115%	SW-846 8240	5/03/00 8:23	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

Increased detection limit due to sample matrix.

1,4-Dichlorobenzene- 41 ug/l

1,2-Dichlorobenzene- 4580 ug/l

1,3-Dichlorobenzene- <10 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 004

SAMPLE DESCRIPTION: P-36S GRAB 04/19/00 @1155

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	7.4		SU	EPA 150.1	4/19/00 11:55	JIB
TEMPERATURE (field)	49.9		F	EPA 170.1	4/19/00 11:55	JIB
SPECIFIC CONDUCTANCE	672	1	µMHOS/CM	EPA 120.1	4/19/00 11:55	JIB
Dissolved Oxygen	1.3	1.0	mg/l	EPA 360.1	4/19/00 11:55	JIB
Volatile Organic Compounds						
chloromethane	<10	10	ug/l	SW-846 8240	5/03/00 9:18	JL
bromomethane	<10	10	ug/l	SW-846 8240	5/03/00 9:18	JL
vinyl chloride	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
dichlorodifluoromethane	<10	10	ug/l	SW-846 8240	5/03/00 9:18	JL
chloroethane	<10	10	ug/l	SW-846 8240	5/03/00 9:18	JL
methylene chloride	<5	5	ug/l	SW-846 8240	5/03/00 9:18	JL
trichlorofluoromethane	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
1,1-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
1,1-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
trans-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
cis-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
chloroform	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
1,2-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
carbon tetrachloride	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
bromodichloromethane	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
1,2-dichloropropane	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
cis-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
trichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
trans-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
Dibromochloromethane	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
Bromoform	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
Tetrachloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
Chlorobenzene	290	1	ug/l	SW-846 8240	5/03/00 9:18	JL
2-chloroethyl vinyl ether	<2	2	ug/l	SW-846 8240	5/03/00 9:18	JL
dichlorobenzenes	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
benzene	2	1	ug/l	SW-846 8240	5/03/00 9:18	JL
toluene	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
ethylbenzene	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
xylenes	<1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
acetone	<10	10	ug/l	SW-846 8240	5/03/00 9:18	JL
carbon disulfide	<5	5	ug/l	SW-846 8240	5/03/00 9:18	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 004

P-36S GRAB 04/19/00 @1155

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	< 10	10	ug/l	SW-846 8240	5/03/00 9:18	JL
vinyl acetate	< 50	50	ug/l	SW-846 8240	5/03/00 9:18	JL
4-Methyl-2-pentanone(MIBK)	< 50	50	ug/l	SW-846 8240	5/03/00 9:18	JL
2-hexanone	< 50	50	ug/l	SW-846 8240	5/03/00 9:18	JL
Styrene	< 1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
O-chlorotoluene	< 1	1	ug/l	SW-846 8240	5/03/00 9:18	JL
MTBE	< 2	2	ug/l	SW-846 8240	5/03/00 9:18	JL
Surrogates		RANGE		SW-846 8240	5/03/00 9:18	JL
Dibromofluoromethane	96		86-118%	SW-846 8240	5/03/00 9:18	JL
Toluene-D8	94		88-110%	SW-846 8240	5/03/00 9:18	JL
Bromofluorobenzene	101		86-115%	SW-846 8240	5/03/00 9:18	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- < 1 ug/l

1,2-Dichlorobenzene- < 1 ug/l

1,3-Dichlorobenzene- < 1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 005

SAMPLE DESCRIPTION: MW-01S GRAB 04/19/00 @1225

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	7		SU	EPA 150.1	4/19/00 12:25	JIB
TEMPERATURE (field)	50.5		F	EPA 170.1	4/19/00 12:25	JIB
SPECIFIC CONDUCTANCE	627	1	µMHOS/CM	EPA 120.1	4/19/00 12:25	JIB
Dissolved Oxygen	<1.0	1.0	mg/l	EPA 360.1	4/19/00 12:25	JIB
Volatile Organic Compounds						
chloromethane	<400	400	ug/l	SW-846 8240	5/03/00 16:59	JL
bromomethane	<400	400	ug/l	SW-846 8240	5/03/00 16:59	JL
vinyl chloride	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
dichlorodifluoromethane	<400	400	ug/l	SW-846 8240	5/03/00 16:59	JL
chloroethane	<400	400	ug/l	SW-846 8240	5/03/00 16:59	JL
methylene chloride	<200	200	ug/l	SW-846 8240	5/03/00 16:59	JL
trichlorofluoromethane	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
1,1-dichloroethylene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
1,1-dichloroethane	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
trans-1,2-dichloroethylene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
cis-1,2-dichloroethylene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
chloroform	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
1,2-dichloroethane	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
1,1,1-Trichloroethane	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
carbon tetrachloride	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
bromodichloromethane	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
1,2-dichloropropane	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
cis-1,3-dichloropropylene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
trichloroethylene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
trans-1,3-dichloropropylene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
1,1,2-Trichloroethane	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
Dibromochloromethane	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
Bromoform	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
Tetrachloroethylene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
1,1,2,2-Tetrachloroethane	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
Chlorobenzene	2400	40	ug/l	SW-846 8240	5/03/00 16:59	JL
2-chloroethyl vinyl ether	<80	80	ug/l	SW-846 8240	5/03/00 16:59	JL
dichlorobenzenes	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
benzene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
toluene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
ethylbenzene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
xylenes	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
acetone	<400	400	ug/l	SW-846 8240	5/03/00 16:59	JL
carbon disulfide	<200	200	ug/l	SW-846 8240	5/03/00 16:59	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 005

MW-01S GRAB 04/19/00 @1225

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	< 400	400	ug/l	SW-846 8240	5/03/00 16:59	JL
vinyl acetate	<2000	2000	ug/l	SW-846 8240	5/03/00 16:59	JL
4-Methyl-2-pentanone(MIBK)	<2000	2000	ug/l	SW-846 8240	5/03/00 16:59	JL
2-hexanone	<2000	2000	ug/l	SW-846 8240	5/03/00 16:59	JL
Styrene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
O-chlorotoluene	<40	40	ug/l	SW-846 8240	5/03/00 16:59	JL
MTBE	<80	80	ug/l	SW-846 8240	5/03/00 16:59	JL
Surrogates		RANGE		SW-846 8240	5/03/00 16:59	JL
Dibromofluoromethane	97		86-118%	SW-846 8240	5/03/00 16:59	JL
Toluene-D8	95		88-110%	SW-846 8240	5/03/00 16:59	JL
Bromofluorobenzene	102		86-115%	SW-846 8240	5/03/00 16:59	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- <40 ug/l

1,2-Dichlorobenzene- <40 ug/l

1,3-Dichlorobenzene- <40 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 006

SAMPLE DESCRIPTION: SW-130 GRAB 04/19/00 @1250

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	7.1		SU	EPA 150.1	4/19/00 12:50	JIB
TEMPERATURE (field)	4902		F	EPA 170.1	4/19/00 12:50	JIB
SPECIFIC CONDUCTANCE	366	1	µMHOS/CM	EPA 120.1	4/19/00 12:50	JIB
Dissolved Oxygen	2.9	1.0	mg/l	EPA 360.1	4/19/00 12:50	JIB
Volatile Organic Compounds						
chloromethane	< 10	10	ug/l	SW-846 8240	5/03/00 10:46	JL
bromomethane	< 10	10	ug/l	SW-846 8240	5/03/00 10:46	JL
vinyl chloride	3	1	ug/l	SW-846 8240	5/03/00 10:46	JL
dichlorodifluoromethane	< 10	10	ug/l	SW-846 8240	5/03/00 10:46	JL
methane	< 10	10	ug/l	SW-846 8240	5/03/00 10:46	JL
methylene chloride	< 5	5	ug/l	SW-846 8240	5/03/00 10:46	JL
trichlorofluoromethane	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
1,1-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
1,1-dichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
trans-1,2-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
cis-1,2-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
chloroform	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
1,2-dichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
1,1,1-Trichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
carbon tetrachloride	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
bromodichloromethane	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
1,2-dichloropropane	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
cis-1,3-dichloropropylene	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
trichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
trans-1,3-dichloropropylene	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
1,1,2-Trichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
Dibromochloromethane	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
Bromoform	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
Tetrachloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
1,1,2,2-Tetrachloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
Chlorobenzene	10	1	ug/l	SW-846 8240	5/03/00 10:46	JL
2-chloroethyl vinyl ether	< 2	2	ug/l	SW-846 8240	5/03/00 10:46	JL
dichlorobenzenes	1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
benzene	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
toluene	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
anisole	< 1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
xylenes	1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
acetone	< 10	10	ug/l	SW-846 8240	5/03/00 10:46	JL
carbon disulfide	< 5	5	ug/l	SW-846 8240	5/03/00 10:46	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 006

SW-130 GRAB 04/19/00 @1250

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	<10	10	ug/l	SW-846 8240	5/03/00 10:46	JL
vinyl acetate	<50	50	ug/l	SW-846 8240	5/03/00 10:46	JL
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8240	5/03/00 10:46	JL
2-hexanone	<50	50	ug/l	SW-846 8240	5/03/00 10:46	JL
Styrene	<1	1	ug/l	SW-846 8240	5/03/00 10:46	JL
O-chlorotoluene	30	1	ug/l	SW-846 8240	5/03/00 10:46	JL
MTBE	<2	2	ug/l	SW-846 8240	5/03/00 10:46	JL
Surrogates			RANGE	SW-846 8240	5/03/00 10:46	JL
Dibromofluoromethane	99		86-118%	SW-846 8240	5/03/00 10:46	JL
Toluene-D8	96		88-110%	SW-846 8240	5/03/00 10:46	JL
Bromofluorobenzene	101		86-115%	SW-846 8240	5/03/00 10:46	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- <1 ug/l

1,2-Dichlorobenzene- 1 ug/l

1,3-Dichlorobenzene- <1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 007

SAMPLE DESCRIPTION: P-37S GRAB 04/19/00 @1445

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	7.1		SU	EPA 150.1	4/19/00 14:45	JIB
TEMPERATURE (field)	50.6		F	EPA 170.1	4/19/00 14:45	JIB
SPECIFIC CONDUCTANCE	621	1	uMHOS/CM	EPA 120.1	4/19/00 14:45	JIB
Dissolved Oxygen	2.1	1.0	mg/l	EPA 360.1	4/19/00 14:45	JIB
Volatile Organic Compounds						
chloromethane	<10	10	ug/l	SW-846 8240	5/03/00 11:30	JL
bromomethane	<10	10	ug/l	SW-846 8240	5/03/00 11:30	JL
vinyl chloride	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
dichlorodifluoromethane	<10	10	ug/l	SW-846 8240	5/03/00 11:30	JL
propane	<10	10	ug/l	SW-846 8240	5/03/00 11:30	JL
methylene chloride	<5	5	ug/l	SW-846 8240	5/03/00 11:30	JL
trichlorofluoromethane	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
1,1-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
1,1-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
trans-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
cis-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
chloroform	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
1,2-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
carbon tetrachloride	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
bromodichloromethane	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
1,2-dichloropropane	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
cis-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
trichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
trans-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
Dibromochloromethane	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
Bromoform	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
Tetrachloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
Chlorobenzene	460	1	ug/l	SW-846 8240	5/03/00 11:30	JL
2-chloroethyl vinyl ether	<2	2	ug/l	SW-846 8240	5/03/00 11:30	JL
dichlorobenzenes	2	1	ug/l	SW-846 8240	5/03/00 11:30	JL
benzene	7	1	ug/l	SW-846 8240	5/03/00 11:30	JL
toluene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
anil benzene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
xylenes	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
acetone	<10	10	ug/l	SW-846 8240	5/03/00 11:30	JL
carbon disulfide	<5	5	ug/l	SW-846 8240	5/03/00 11:30	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 007

P-37S GRAB 04/19/00 @1445

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	<10	10	ug/l	SW-846 8240	5/03/00 11:30	JL
vinyl acetate	<50	50	ug/l	SW-846 8240	5/03/00 11:30	JL
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8240	5/03/00 11:30	JL
2-hexanone	<50	50	ug/l	SW-846 8240	5/03/00 11:30	JL
Styrene	<1	1	ug/l	SW-846 8240	5/03/00 11:30	JL
O-chlorotoluene	5	1	ug/l	SW-846 8240	5/03/00 11:30	JL
MTBE	<2	2	ug/l	SW-846 8240	5/03/00 11:30	JL
Surrogates			RANGE	SW-846 8240	5/03/00 11:30	JL
Dibromofluoromethane	88		86-118%	SW-846 8240	5/03/00 11:30	JL
Toluene-D8	96		88-110%	SW-846 8240	5/03/00 11:30	JL
Bromofluorobenzene	101		86-115%	SW-846 8240	5/03/00 11:30	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- 2 ug/l

1,2-Dichlorobenzene- <1 ug/l

1,3-Dichlorobenzene- <1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 008

SAMPLE DESCRIPTION: SW-110 GRAB 04/19/00 @1510

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	7.0		SU	EPA 150.1	4/19/00 15:10	JIB
TEMPERATURE (field)	49.86		F	EPA 170.1	4/19/00 15:10	JIB
SPECIFIC CONDUCTANCE	378	1	µMHOS/CM	EPA 120.1	4/19/00 15:10	JIB
Dissolved Oxygen	1.8	1.0	mg/l	EPA 360.1	4/19/00 15:10	JIB
Volatile Organic Compounds						
chloromethane	<200	200	ug/l	SW-846 8240	5/03/00 18:04	JL
bromomethane	<200	200	ug/l	SW-846 8240	5/03/00 18:04	JL
vinyl chloride	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
dichlorodifluoromethane	<200	200	ug/l	SW-846 8240	5/03/00 18:04	JL
propane	<200	200	ug/l	SW-846 8240	5/03/00 18:04	JL
methylene chloride	<100	100	ug/l	SW-846 8240	5/03/00 18:04	JL
trichlorofluoromethane	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
1,1-dichloroethylene	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
1,1-dichloroethane	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
trans-1,2-dichloroethylene	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
cis-1,2-dichloroethylene	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
chloroform	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
1,2-dichloroethane	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
1,1,1-Trichloroethane	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
carbon tetrachloride	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
bromodichloromethane	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
1,2-dichloropropane	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
cis-1,3-dichloropropylene	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
trichloroethylene	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
trans-1,3-dichloropropylene	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
1,1,2-Trichloroethane	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
Dibromochloromethane	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
Bromoform	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
Tetrachloroethylene	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
1,1,2,2-Tetrachloroethane	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
Chlorobenzene	1800	20	ug/l	SW-846 8240	5/03/00 18:04	JL
2-chloroethyl vinyl ether	<40	40	ug/l	SW-846 8240	5/03/00 18:04	JL
dichlorobenzenes	47	20	ug/l	SW-846 8240	5/03/00 18:04	JL
benzene	68	20	ug/l	SW-846 8240	5/03/00 18:04	JL
toluene	380	20	ug/l	SW-846 8240	5/03/00 18:04	JL
ethylbenzene	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
xylenes	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
acetone	<200	200	ug/l	SW-846 8240	5/03/00 18:04	JL
carbon disulfide	<100	100	ug/l	SW-846 8240	5/03/00 18:04	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 008

SW-110 GRAB 04/19/00 @1510

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	<200	200	ug/l	SW-846 8240	5/03/00 18:04	JL
vinyl acetate	<1000	1000	ug/l	SW-846 8240	5/03/00 18:04	JL
4-Methyl-2-pentanone(MIBK)	< 1000	1000	ug/l	SW-846 8240	5/03/00 18:04	JL
2-hexanone	< 1000	1000	ug/l	SW-846 8240	5/03/00 18:04	JL
Styrene	<20	20	ug/l	SW-846 8240	5/03/00 18:04	JL
O-chlorotoluene	91	20	ug/l	SW-846 8240	5/03/00 18:04	JL
MTBE	<40	40	ug/l	SW-846 8240	5/03/00 18:04	JL
Surrogates			RANGE	SW-846 8240	5/03/00 18:04	JL
Dibromofluoromethane	90		86-118%	SW-846 8240	5/03/00 18:04	JL
Toluene-D8	94		88-110%	SW-846 8240	5/03/00 18:04	JL
Bromofluorobenzene	100		86-115%	SW-846 8240	5/03/00 18:04	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

Increased detection limit due to sample matrix.

1,4-Dichlorobenzene- <20 ug/l

1,2-Dichlorobenzene- 47 ug/l

1,3-Dichlorobenzene- <20 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

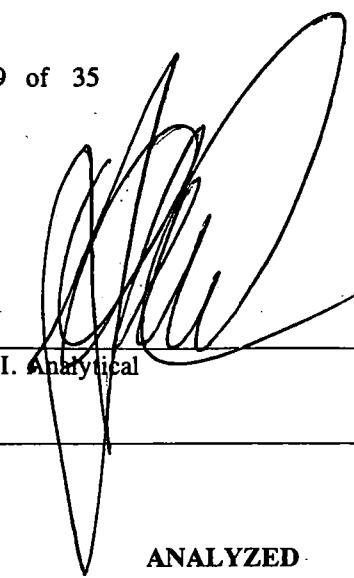
Sample #: 009

SAMPLE DESCRIPTION: P-38S GRAB 04/19/00 @1535

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	6.8		SU	EPA 150.1	4/19/00 15:35	JIB
TEMPERATURE (field)	53		F	EPA 170.1	4/19/00 15:35	JIB
SPECIFIC CONDUCTANCE	388	1	µMHOS/CM	EPA 120.1	4/19/00 15:35	JIB
Dissolved Oxygen	4.2	1.0	mg/l	EPA 360.1	4/19/00 15:35	JIB
Volatile Organic Compounds						
chloromethane	<10	10	ug/l	SW-846 8240	5/03/00 18:50	JL
bromomethane	<10	10	ug/l	SW-846 8240	5/03/00 18:50	JL
vinyl chloride	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
dichlorodifluoromethane	<10	10	ug/l	SW-846 8240	5/03/00 18:50	JL
propane	<10	10	ug/l	SW-846 8240	5/03/00 18:50	JL
methylene chloride	<5	5	ug/l	SW-846 8240	5/03/00 18:50	JL
trichlorofluoromethane	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
1,1-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
1,1-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
trans-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
cis-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
chloroform	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
1,2-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
carbon tetrachloride	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
bromodichloromethane	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
1,2-dichloropropane	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
cis-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
trichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
trans-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
Dibromochloromethane	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
Bromoform	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
Tetrachloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
Chlorobenzene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
2-chloroethyl vinyl ether	<2	2	ug/l	SW-846 8240	5/03/00 18:50	JL
dichlorobenzenes	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
benzene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
toluene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
methylbenzene	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
xylenes	<1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
acetone	<10	10	ug/l	SW-846 8240	5/03/00 18:50	JL
carbon disulfide	<5	5	ug/l	SW-846 8240	5/03/00 18:50	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS



Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 009

P-38S GRAB 04/19/00 @1535

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	< 10	10	ug/l	SW-846 8240	5/03/00 18:50	JL
vinyl acetate	< 50	50	ug/l	SW-846 8240	5/03/00 18:50	JL
4-Methyl-2-pentanone(MIBK)	< 50	50	ug/l	SW-846 8240	5/03/00 18:50	JL
2-hexanone	< 50	50	ug/l	SW-846 8240	5/03/00 18:50	JL
Styrene	< 1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
O-chlorotoluene	< 1	1	ug/l	SW-846 8240	5/03/00 18:50	JL
MTBE	< 2	2	ug/l	SW-846 8240	5/03/00 18:50	JL
Surrogates			RANGE	SW-846 8240	5/03/00 18:50	JL
Dibromofluoromethane	96		86-118%	SW-846 8240	5/03/00 18:50	JL
Toluene-D8	94		88-110%	SW-846 8240	5/03/00 18:50	JL
Bromofluorobenzene	100		86-115%	SW-846 8240	5/03/00 18:50	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- < 1 ug/l

1,2-Dichlorobenzene- < 1 ug/l

1,3-Dichlorobenzene- < 1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.
 Date Received: 4/20/00
 Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 010

SAMPLE DESCRIPTION: MW-12S GRAB 04/20/00 @1000

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	6.9		SU	EPA 150.1	4/20/00 10:00	JIB
TEMPERATURE (field)	51.6		F	EPA 170.1	4/20/00 10:00	JIB
SPECIFIC CONDUCTANCE	439	1	uMHOS/CM	EPA 120.1	4/20/00 10:00	JIB
Dissolved Oxygen	1.5	1.0	mg/l	EPA 360.1	4/20/00 10:00	JIB
Volatile Organic Compounds						
chloromethane	< 10	10	ug/l	SW-846 8240	5/03/00 19:37	JL
bromomethane	< 10	10	ug/l	SW-846 8240	5/03/00 19:37	JL
vinyl chloride	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
dichlorodifluoromethane	< 10	10	ug/l	SW-846 8240	5/03/00 19:37	JL
propane	< 10	10	ug/l	SW-846 8240	5/03/00 19:37	JL
methylene chloride	< 5	5	ug/l	SW-846 8240	5/03/00 19:37	JL
trichlorofluoromethane	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
1,1-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
1,1-dichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
trans-1,2-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
cis-1,2-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
chloroform	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
1,2-dichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
1,1,1-Trichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
carbon tetrachloride	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
bromodichloromethane	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
1,2-dichloropropane	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
cis-1,3-dichloropropylene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
trichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
trans-1,3-dichloropropylene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
1,1,2-Trichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
Dibromochloromethane	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
Bromoform	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
Tetrachloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
1,1,2,2-Tetrachloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
Chlorobenzene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
2-chloroethyl vinyl ether	< 2	2	ug/l	SW-846 8240	5/03/00 19:37	JL
dichlorobenzenes	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
benzene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
toluene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
ethylbenzene	4	1	ug/l	SW-846 8240	5/03/00 19:37	JL
xylenes	1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
acetone	< 10	10	ug/l	SW-846 8240	5/03/00 19:37	JL
carbon disulfide	< 5	5	ug/l	SW-846 8240	5/03/00 19:37	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 010

MW-12S GRAB 04/20/00 @1000

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	< 10	10	ug/l	SW-846 8240	5/03/00 19:37	JL
vinyl acetate	< 50	50	ug/l	SW-846 8240	5/03/00 19:37	JL
4-Methyl-2-pentanone(MIBK)	< 50	50	ug/l	SW-846 8240	5/03/00 19:37	JL
2-hexanone	< 50	50	ug/l	SW-846 8240	5/03/00 19:37	JL
Styrene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
O-chlorotoluene	< 1	1	ug/l	SW-846 8240	5/03/00 19:37	JL
MTBE	< 2	2	ug/l	SW-846 8240	5/03/00 19:37	JL
Surrogates			RANGE	SW-846 8240	5/03/00 19:37	JL
Dibromofluoromethane	98		86-118%	SW-846 8240	5/03/00 19:37	JL
Toluene-D8	95		88-110%	SW-846 8240	5/03/00 19:37	JL
Bromofluorobenzene	99		86-115%	SW-846 8240	5/03/00 19:37	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- < 1 ug/l

1,2-Dichlorobenzene- < 1 ug/l

1,3-Dichlorobenzene- < 1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 011

SAMPLE DESCRIPTION: MW-21S GRAB 04/20/00 @1040

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	6.6		SU	EPA 150.1	4/20/00 10:40	JIB
TEMPERATURE (field)	51.2		F	EPA 170.1	4/20/00 10:40	JIB
SPECIFIC CONDUCTANCE	424	1	µMHOS/CM	EPA 120.1	4/20/00 10:40	JIB
Dissolved Oxygen	1.4	1.0	mg/l	EPA 360.1	4/20/00 10:40	JIB
Volatile Organic Compounds						
chloromethane	< 400	400	ug/l	SW-846 8240	5/04/00 5:45	JL
bromomethane	< 400	400	ug/l	SW-846 8240	5/04/00 5:45	JL
vinyl chloride	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
dichlorodifluoromethane	< 400	400	ug/l	SW-846 8240	5/04/00 5:45	JL
chloroethane	< 400	400	ug/l	SW-846 8240	5/04/00 5:45	JL
methylene chloride	< 200	200	ug/l	SW-846 8240	5/04/00 5:45	JL
trichlorofluoromethane	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
1,1-dichloroethylene	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
1,1-dichloroethane	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
trans-1,2-dichloroethylene	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
cis-1,2-dichloroethylene	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
chloroform	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
1,2-dichloroethane	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
1,1,1-Trichloroethane	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
carbon tetrachloride	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
bromodichloromethane	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
1,2-dichloropropane	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
cis-1,3-dichloropropylene	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
trichloroethylene	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
trans-1,3-dichloropropylene	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
1,1,2-Trichloroethane	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
Dibromochloromethane	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
Bromoform	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
Tetrachloroethylene	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
1,1,2,2-Tetrachloroethane	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
Chlorobenzene	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
2-chloroethyl vinyl ether	< 80	80	ug/l	SW-846 8240	5/04/00 5:45	JL
dichlorobenzenes	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
benzene	< 40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
toluene	1500	40	ug/l	SW-846 8240	5/04/00 5:45	JL
ethylbenzene	61	40	ug/l	SW-846 8240	5/04/00 5:45	JL
xylenes	300	40	ug/l	SW-846 8240	5/04/00 5:45	JL
acetone	< 400	400	ug/l	SW-846 8240	5/04/00 5:45	JL
carbon disulfide	< 200	200	ug/l	SW-846 8240	5/04/00 5:45	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 011

MW-21S GRAB 04/20/00 @1040

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	<400	400	ug/l	SW-846 8240	5/04/00 5:45	JL
vinyl acetate	<2000	2000	ug/l	SW-846 8240	5/04/00 5:45	JL
4-Methyl-2-pentanone(MIBK)	<2000	2000	ug/l	SW-846 8240	5/04/00 5:45	JL
2-hexanone	<2000	2000	ug/l	SW-846 8240	5/04/00 5:45	JL
Styrene	<40	40	ug/l	SW-846 8240	5/04/00 5:45	JL
O-chlorotoluene	11000	40	ug/l	SW-846 8240	5/04/00 5:45	JL
MTBE	<80	80	ug/l	SW-846 8240	5/04/00 5:45	JL
Surrogates			RANGE	SW-846 8240	5/04/00 5:45	JL
Dibromofluoromethane	96		86-118%	SW-846 8240	5/04/00 5:45	JL
Toluene-D8	95		88-110%	SW-846 8240	5/04/00 5:45	JL
Bromofluorobenzene	102		86-115%	SW-846 8240	5/04/00 5:45	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- <40 ug/l

1,2-Dichlorobenzene- <40 ug/l

1,3-Dichlorobenzene- <40 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 012

SAMPLE DESCRIPTION: MW-04S GRAB 04/20/00 @1100

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
pH (field)	6.7		SU	EPA 150.1	4/20/00 11:00	JIB
TEMPERATURE (field)	51.8		F	EPA 170.1	4/20/00 11:00	JIB
SPECIFIC CONDUCTANCE	579	1	µMHOS/CM	EPA 120.1	4/20/00 11:00	JIB
Dissolved Oxygen	2.0	1.0	mg/l	EPA 360.1	4/20/00 11:00	JIB
Volatile Organic Compounds						
chloromethane	<200	200	ug/l	SW-846 8240	5/04/00 6:28	JL
bromomethane	<200	200	ug/l	SW-846 8240	5/04/00 6:28	JL
vinyl chloride	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
dichlorodifluoromethane	<200	200	ug/l	SW-846 8240	5/04/00 6:28	JL
chloroethane	<200	200	ug/l	SW-846 8240	5/04/00 6:28	JL
methylene chloride	<100	100	ug/l	SW-846 8240	5/04/00 6:28	JL
trichlorofluoromethane	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
1,1-dichloroethylene	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
1,1-dichloroethane	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
trans-1,2-dichloroethylene	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
cis-1,2-dichloroethylene	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
chloroform	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
1,2-dichloroethane	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
1,1,1-Trichloroethane	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
carbon tetrachloride	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
bromodichloromethane	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
1,2-dichloropropane	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
cis-1,3-dichloropropylene	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
trichloroethylene	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
trans-1,3-dichloropropylene	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
1,1,2-Trichloroethane	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
Dibromochloromethane	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
Bromoform	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
Tetrachloroethylene	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
1,1,2,2-Tetrachloroethane	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
Chlorobenzene	170	20	ug/l	SW-846 8240	5/04/00 6:28	JL
2-chloroethyl vinyl ether	<40	40	ug/l	SW-846 8240	5/04/00 6:28	JL
dichlorobenzenes	74	20	ug/l	SW-846 8240	5/04/00 6:28	JL
benzene	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
toluene	84	20	ug/l	SW-846 8240	5/04/00 6:28	JL
anylbenzene	26	20	ug/l	SW-846 8240	5/04/00 6:28	JL
xylenes	120	20	ug/l	SW-846 8240	5/04/00 6:28	JL
acetone	<200	200	ug/l	SW-846 8240	5/04/00 6:28	JL
carbon disulfide	<100	100	ug/l	SW-846 8240	5/04/00 6:28	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 012

MW-04S GRAB 04/20/00 @1100

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
2-Butanone(MEK)	<200	200	ug/l	SW-846 8240	5/04/00 6:28	JL
vinyl acetate	<1000	1000	ug/l	SW-846 8240	5/04/00 6:28	JL
4-Methyl-2-pentanone(MIBK)	<1000	1000	ug/l	SW-846 8240	5/04/00 6:28	JL
2-hexanone	<1000	1000	ug/l	SW-846 8240	5/04/00 6:28	JL
Styrene	<20	20	ug/l	SW-846 8240	5/04/00 6:28	JL
O-chlorotoluene	1000	20	ug/l	SW-846 8240	5/04/00 6:28	JL
MTBE	<40	40	ug/l	SW-846 8240	5/04/00 6:28	JL
Surrogates			RANGE	SW-846 8240	5/04/00 6:28	JL
Dibromofluoromethane	96		86-118%	SW-846 8240	5/04/00 6:28	JL
Toluene-D8	95		88-110%	SW-846 8240	5/04/00 6:28	JL
Bromofluorobenzene	102		86-115%	SW-846 8240	5/04/00 6:28	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- <20 ug/l

1,2-Dichlorobenzene- 74 ug/l

1,3-Dichlorobenzene- <20 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 013

SAMPLE DESCRIPTION: TRIP BLANK 04/19/00 @0820

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Volatile Organic Compounds						
chloromethane	<10	10	ug/l	SW-846 8240	5/03/00 20:22	JL
bromomethane	<10	10	ug/l	SW-846 8240	5/03/00 20:22	JL
vinyl chloride	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
dichlorodifluoromethane	<10	10	ug/l	SW-846 8240	5/03/00 20:22	JL
chloroethane	<10	10	ug/l	SW-846 8240	5/03/00 20:22	JL
methylene chloride	<5	5	ug/l	SW-846 8240	5/03/00 20:22	JL
trichlorofluoromethane	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
1,1-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
1,1-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
trans-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
cis-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
chloroform	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
1,2-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
carbon tetrachloride	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
bromodichloromethane	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
1,2-dichloropropane	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
cis-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
trichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
trans-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
Dibromochloromethane	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
Bromoform	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
Tetrachloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
Chlorobenzene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
2-chloroethyl vinyl ether	<2	2	ug/l	SW-846 8240	5/03/00 20:22	JL
dichlorobenzenes	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
benzene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
toluene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
ethylbenzene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
xylenes	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
acetone	<10	10	ug/l	SW-846 8240	5/03/00 20:22	JL
carbon disulfide	<5	5	ug/l	SW-846 8240	5/03/00 20:22	JL
Butanone(MEK)	<10	10	ug/l	SW-846 8240	5/03/00 20:22	JL
vinyl acetate	<50	50	ug/l	SW-846 8240	5/03/00 20:22	JL
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8240	5/03/00 20:22	JL
2-hexanone	<50	50	ug/l	SW-846 8240	5/03/00 20:22	JL



R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

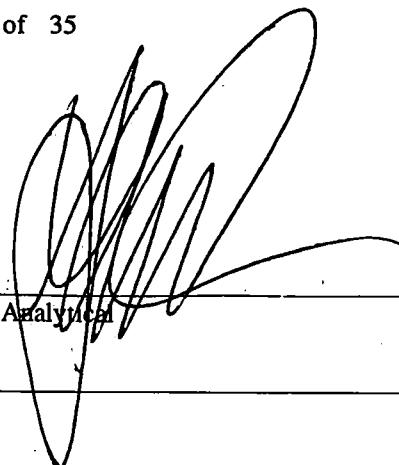
Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical



Sample #: 013

TRIP BLANK 04/19/00 @0820

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Styrene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
O-chlorotoluene	<1	1	ug/l	SW-846 8240	5/03/00 20:22	JL
MTBE	<2	2	ug/l	SW-846 8240	5/03/00 20:22	JL
Surrogates			RANGE	SW-846 8240	5/03/00 20:22	JL
Dibromofluoromethane	95		86-118%	SW-846 8240	5/03/00 20:22	JL
Toluene-D8	95		88-110%	SW-846 8240	5/03/00 20:22	JL
4-Bromofluorobenzene	100		86-115%	SW-846 8240	5/03/00 20:22	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- <1 ug/l
1,2-Dichlorobenzene- <1 ug/l
1,3-Dichlorobenzene- <1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 014

SAMPLE DESCRIPTION: EQUIPMENT BLANK 04/19/00 @0955

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Volatile Organic Compounds						
chloromethane	<10	10	ug/l	SW-846 8240	5/03/00 21:06	JL
bromomethane	<10	10	ug/l	SW-846 8240	5/03/00 21:06	JL
vinyl chloride	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
dichlorodifluoromethane	<10	10	ug/l	SW-846 8240	5/03/00 21:06	JL
chloroethane	<10	10	ug/l	SW-846 8240	5/03/00 21:06	JL
methylene chloride	<5	5	ug/l	SW-846 8240	5/03/00 21:06	JL
trichlorofluoromethane	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
1,1-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
trans-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
cis-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
chloroform	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
1,2-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
carbon tetrachloride	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
bromodichloromethane	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
1,2-dichloropropane	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
cis-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
trichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
trans-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
Dibromochloromethane	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
Bromoform	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
Tetrachloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
Chlorobenzene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
2-chloroethyl vinyl ether	<2	2	ug/l	SW-846 8240	5/03/00 21:06	JL
dichlorobenzenes	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
benzene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
toluene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
ethylbenzene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
xylenes	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
acetone	<10	10	ug/l	SW-846 8240	5/03/00 21:06	JL
carbon disulfide	<5	5	ug/l	SW-846 8240	5/03/00 21:06	JL
-Butanone(MEK)	<10	10	ug/l	SW-846 8240	5/03/00 21:06	JL
vinyl acetate	<50	50	ug/l	SW-846 8240	5/03/00 21:06	JL
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8240	5/03/00 21:06	JL
2-hexanone	<50	50	ug/l	SW-846 8240	5/03/00 21:06	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 014

EQUIPMENT BLANK 04/19/00 @0955

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Styrene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
O-chlorotoluene	<1	1	ug/l	SW-846 8240	5/03/00 21:06	JL
MTBE	<2	2	ug/l	SW-846 8240	5/03/00 21:06	JL
Surrogates			RANGE	SW-846 8240	5/03/00 21:06	JL
Dibromofluoromethane	97		86-118%	SW-846 8240	5/03/00 21:06	JL
Toluene-D8	96		88-110%	SW-846 8240	5/03/00 21:06	JL
4-Bromofluorobenzene	105		86-115%	SW-846 8240	5/03/00 21:06	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- <1 ug/l
 1,2-Dichlorobenzene- <1 ug/l
 1,3-Dichlorobenzene- <1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 015

SAMPLE DESCRIPTION: TRIP BLANK 04/20/00 @0815

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Volatile Organic Compounds						
chloromethane	<10	10	ug/l	SW-846 8240	5/03/00 21:50	JL
bromomethane	<10	10	ug/l	SW-846 8240	5/03/00 21:50	JL
vinyl chloride	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
dichlorodifluoromethane	<10	10	ug/l	SW-846 8240	5/03/00 21:50	JL
chloroethane	<10	10	ug/l	SW-846 8240	5/03/00 21:50	JL
methylene chloride	<5	5	ug/l	SW-846 8240	5/03/00 21:50	JL
trichlorofluoromethane	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
1,1-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
1,1-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
trans-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
cis-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
chloroform	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
1,2-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
carbon tetrachloride	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
bromodichloromethane	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
1,2-dichloropropane	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
cis-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
trichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
trans-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
Dibromochloromethane	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
Bromoform	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
Tetrachloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
Chlorobenzene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
2-chloroethyl vinyl ether	<2	2	ug/l	SW-846 8240	5/03/00 21:50	JL
dichlorobenzenes	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
benzene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
toluene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
ethylbenzene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
xylenes	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
acetone	<10	10	ug/l	SW-846 8240	5/03/00 21:50	JL
Carbon disulfide	<5	5	ug/l	SW-846 8240	5/03/00 21:50	JL
Butanone(MEK)	<10	10	ug/l	SW-846 8240	5/03/00 21:50	JL
vinyl acetate	<50	50	ug/l	SW-846 8240	5/03/00 21:50	JL
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8240	5/03/00 21:50	JL
2-hexanone	<50	50	ug/l	SW-846 8240	5/03/00 21:50	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 015

TRIP BLANK 04/20/00 @0815

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Styrene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
O-chlorotoluene	<1	1	ug/l	SW-846 8240	5/03/00 21:50	JL
MTBE	<2	2	ug/l	SW-846 8240	5/03/00 21:50	JL
Surrogates			RANGE	SW-846 8240	5/03/00 21:50	JL
Dibromofluoromethane	98		86-118%	SW-846 8240	5/03/00 21:50	JL
Toluene-D8	94		88-110%	SW-846 8240	5/03/00 21:50	JL
4-Bromofluorobenzene	105		86-115%	SW-846 8240	5/03/00 21:50	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- <1 ug/l
 1,2-Dichlorobenzene- <1 ug/l
 1,3-Dichlorobenzene- <1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

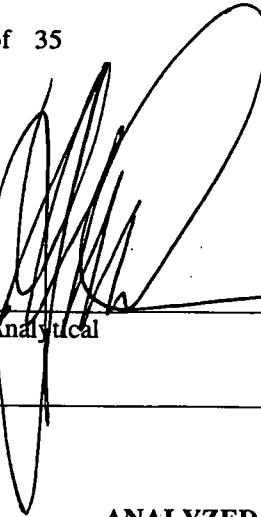
Approved by:

R.I. Analytical

Sample #: 016

SAMPLE DESCRIPTION: EQUIPMENT BLANK 04/20/00 @0910

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Volatile Organic Compounds						
chloromethane	< 10	10	ug/l	SW-846 8240	5/03/00 22:34	JL
bromomethane	< 10	10	ug/l	SW-846 8240	5/03/00 22:34	JL
vinyl chloride	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
dichlorodifluoromethane	< 10	10	ug/l	SW-846 8240	5/03/00 22:34	JL
chloroethane	< 10	10	ug/l	SW-846 8240	5/03/00 22:34	JL
methylene chloride	< 5	5	ug/l	SW-846 8240	5/03/00 22:34	JL
trichlorofluoromethane	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
1,1-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
-dichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
trans-1,2-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
cis-1,2-dichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
chloroform	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
1,2-dichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
1,1,1-Trichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
carbon tetrachloride	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
bromodichloromethane	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
1,2-dichloropropane	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
cis-1,3-dichloropropylene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
trichloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
trans-1,3-dichloropropylene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
1,1,2-Trichloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
Dibromochloromethane	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
Bromoform	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
Tetrachloroethylene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
1,1,2,2-Tetrachloroethane	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
Chlorobenzene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
2-chloroethyl vinyl ether	< 2	2	ug/l	SW-846 8240	5/03/00 22:34	JL
dichlorobenzenes	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
benzene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
toluene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
ethylbenzene	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
xylanes	< 1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
acetone	< 10	10	ug/l	SW-846 8240	5/03/00 22:34	JL
carbon disulfide	< 5	5	ug/l	SW-846 8240	5/03/00 22:34	JL
Butanone(MEK)	< 10	10	ug/l	SW-846 8240	5/03/00 22:34	JL
vinyl acetate	< 50	50	ug/l	SW-846 8240	5/03/00 22:34	JL
4-Methyl-2-pentanone(MIBK)	< 50	50	ug/l	SW-846 8240	5/03/00 22:34	JL
2-hexanone	< 50	50	ug/l	SW-846 8240	5/03/00 22:34	JL



R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 016

EQUIPMENT BLANK 04/20/00 @0910

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Styrene	<1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
O-chlorotoluene	<1	1	ug/l	SW-846 8240	5/03/00 22:34	JL
MTBE	<2	2	ug/l	SW-846 8240	5/03/00 22:34	JL
Surrogates			RANGE	SW-846 8240	5/03/00 22:34	JL
Dibromofluoromethane	98		86-118%	SW-846 8240	5/03/00 22:34	JL
Toluene-D8	96		88-110%	SW-846 8240	5/03/00 22:34	JL
4-Bromofluorobenzene	101		86-115%	SW-846 8240	5/03/00 22:34	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- <1 ug/l
 1,2-Dichlorobenzene- <1 ug/l
 1,3-Dichlorobenzene- <1 ug/l

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 017

SAMPLE DESCRIPTION: MW-12S DUPLICATE 04/20/00 @1000

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Volatile Organic Compounds						
chloromethane	<10	10	ug/l	SW-846 8240	5/03/00 23:15	JL
bromomethane	<10	10	ug/l	SW-846 8240	5/03/00 23:15	JL
vinyl chloride	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
dichlorodifluoromethane	<10	10	ug/l	SW-846 8240	5/03/00 23:15	JL
chloroethane	<10	10	ug/l	SW-846 8240	5/03/00 23:15	JL
methylene chloride	<5	5	ug/l	SW-846 8240	5/03/00 23:15	JL
trichlorofluoromethane	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
1,1-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
1,1-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
cis-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
cis-1,2-dichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
chloroform	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
1,2-dichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
carbon tetrachloride	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
bromodichloromethane	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
1,2-dichloropropane	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
cis-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
trichloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
trans-1,3-dichloropropylene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
Dibromochloromethane	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
Bromoform	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
Tetrachloroethylene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
Chlorobenzene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
2-chloroethyl vinyl ether	<2	2	ug/l	SW-846 8240	5/03/00 23:15	JL
dichlorobenzenes	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
benzene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
toluene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
ethylbenzene	4	1	ug/l	SW-846 8240	5/03/00 23:15	JL
xylenes	1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
acetone	<10	10	ug/l	SW-846 8240	5/03/00 23:15	JL
carbon disulfide	<5	5	ug/l	SW-846 8240	5/03/00 23:15	JL
butanone(MEK)	<10	10	ug/l	SW-846 8240	5/03/00 23:15	JL
vinyl acetate	<50	50	ug/l	SW-846 8240	5/03/00 23:15	JL
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8240	5/03/00 23:15	JL
2-hexanone	<50	50	ug/l	SW-846 8240	5/03/00 23:15	JL

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Ciba Specialty Chemicals Corp.

Date Received: 4/20/00

Work Order # 0004-04616

Approved by:

R.I. Analytical

Sample #: 017

MW-12S DUPLICATE 04/20/00 @1000

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
Styrene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
O-chlorotoluene	<1	1	ug/l	SW-846 8240	5/03/00 23:15	JL
MTBE	<2	2	ug/l	SW-846 8240	5/03/00 23:15	JL
Surrogates			RANGE	SW-846 8240	5/03/00 23:15	JL
Dibromofluoromethane	96		86-118%	SW-846 8240	5/03/00 23:15	JL
Toluene-D8	96		88-110%	SW-846 8240	5/03/00 23:15	JL
4-Bromofluorobenzene	99		86-115%	SW-846 8240	5/03/00 23:15	JL

Volatile organic analyses performed under the operating guidelines
method 8260.

1,4-Dichlorobenzene- <1 ug/l
 1,2-Dichlorobenzene- <1 ug/l
 1,3-Dichlorobenzene- <1 ug/l

RI Analytical Laboratories, Inc.
QA/QC Report

Client: CIBA Specialty Chemicals Corp.
W.O. #: 0004-04616
Date: 5/11/2000

-Method Blank Results-

Parameter	Units	Results	Date Analyzed
Benzene	ug/l	<1	5/3/2000
Chlorobenzene	ug/l	<1	5/3/2000
1,1-Dichloroethene	ug/l	<1	5/3/2000
Toluene	ug/l	<1	5/3/2000
Trichloroethylene	ug/l	<1	5/3/2000

- Replicate Sample Results -

Parameter	Units	Sample #	Rep. 1 Conc.	Rep. 2 Conc.	Mean Conc.	RPD	Date Analyzed
Benzene	ug/l	4616-17	<1	<1	<1	0	5/3/2000
Chlorobenzene	ug/l	4616-17	<1	<1	<1	0	5/3/2000
1,1-Dichloroethene	ug/l	4616-17	<1	<1	<1	0	5/3/2000
Toluene	ug/l	4616-17	<1	<1	<1	0	5/3/2000
Trichloroethylene	ug/l	4616-17	<1	<1	<1	0	5/3/2000

R.I. Analytical Laboratories, Inc.

41 Illinois Avenue
Warwick, RI 02888
Phone: (401) 737-8500
Fax: (401) 738-1970

950 Boylston Street, Unit 102
Newton Highlands, MA 02461
Phone: (617) 965-5133
Fax: (617) 965-5624

CHAIN OF CUSTODY RECORDPage 1 of 2

Container Type Codes:
P=Plastic AG=Amber Glass
G=Glass St=Sterile
V=Vial
O=Other (describe)

Preservative Codes:
NP=Non preserved S=Sulfuric
I=Cooled 4°C H=HCL
N=Nitric SH=NaOH
M=Methanol SB=NaHSO4

Matrix Codes:
GW=Groundwater S=Soil
WW=Wastewater SI=Sludge
DW=Drinking water A=Air
O=Other (describe) B=Bulk/Solid

Date Collected	Time Collected	Sample ID	G=Grab C=Comp.	Containers # + (code)	Preservative (code)	Matrix (code)	Analysis Request		
4/19/00	1000	MW-025	G	2-V	H	GW	8240 including O-chlorotoluene, pH, Temp, SC, DC		
4/19/00	1045	SW-120	G	2-V	H	GW			
4/19/00	1110	P-355	G	2-V	H	GW			
4/19/00	1155	P-365	G	2-V	H	GW			
4/19/00	1225	MW-015	G	2-V	H	GW			
4/19/00	1250	SW-130	G	2-V	H	GW			
4/19/00	1445	P-375	G	2-V	H	GW			
4/19/00	1510	SW-110	G	2-V	H	GW			
4/19/00	1535	P-385	G	2-V	H	GW			
4/20/00	1000	MW-125	G	2-V	H	GW	✓	✓	✓

Client Information

Company Name:	Project Name / Location: Ciba Geigy site on Mill St., Cranston, RI		
Address:	P.O. Number / Project Number:		
City / State / Zip:	Project Manager / Report To:		
Phone: (903)-914-2737	Fax: (903) 914-2909	Sampled by: Justin Blair / Paul Persotti	
Contact: Barry Cohen	Reference Proposal:		

Relinquished by:	Date	Time	Received by:	Date	Time
JBL	4/20/00	1300	SB	4/20/00	1857

Reception Ice

Project Comments:

* AC to include: Matrix spike
Matrix spike Duplicate
Duplicate

* pH, temp, specific conductance,
D.O. Taken in the field.
Field notes and results attached

Turn Around Time:
<input checked="" type="checkbox"/> Normal
<input type="checkbox"/> 5 business days Surcharges may apply
<input type="checkbox"/> Rush (business days)

RIAL USE ONLY:
<input type="checkbox"/> Pick-Up Only
<input checked="" type="checkbox"/> RIAL Sampled
<input checked="" type="checkbox"/> Shipped on Ice RIAL W.O. # 4616

R.I. Analytical Laboratories, Inc.

41 Illinois Avenue
Warwick, RI 02888
Phone: (401) 737-8500
Fax: (401) 738-1970

950 Boylston Street, Unit 102
Newton Highlands, MA 02461
Phone: (617) 965-5133
Fax: (617) 965-5624

CHAIN OF CUSTODY RECORD

Page 2 of 2

Container Type Codes:
P=Plastic AG=Amber Glass
G=Glass St=Sterile
V=Vial
O=Other (describe)

Preservative Codes:
NP=Non preserved S=Sulfuric
I=Cooled 4°C H=HCL
N=Nitric SH=NaOH
M=Methanol SB=NaHSO4

Matrix Codes:
GW=Groundwater S=Soil*
WW=Wastewater SI=Sludge
DW=Drinking water A=Air
O=Other (describe) B=Bulk/Solid

Date Collected	Time Collected	Sample ID	G=Grab C=Comp.	Containers # + (code)	Preservative (code)	Matrix (code)	Analysis Request
4/20/00	1040	MW-215	G	2-V	H	GW	8240 including O-chlorotoluene/pH* Temp*/S.C.*/D.O.*
4/20/00	1100	MW-045	G	2-V	H	GW	↓
4/19/00	0820	Trip Blank	G	1-V	H	GW	8240 including O-chlorotoluene
4/19/00	0955	Equipment Blank	G	1-V	H	GW	
4/20/00	0815	Trip Blank	G	1-V	H	GW	
4/20/00	0910	Equipment Blank	G	1-V	H	GW	
4/20/00	1000	MW-125 Duplicate	G	1-V	H	GW	
4/20/00	1000	MW-125 Matrix Spike	G	1-V	H	GW	↓

Client Information

Company Name: Ciba Geigy
Address: Rt. 37 West / P.O. Box 71
City / State / Zip: Toms River, New Jersey 08754-0071
Phone: (903) - 914-2737 Fax: (903) 914-2909
Contact:

Project Name / Location: Ciba Geigy site on Mill St., Cranston, RI
P.O. Number / Project Number:
Project Manager / Report To:
Sampled by: Justin Blair / Paul Perratti
Reference Proposal:

Relinquished by:	Date	Time	Received by:	Date	Time
Justin Blair	4/20/00	1300	Julie L	4/20/00	1857

Rec'd on ice

Project Comments:
* QC to include: Matrix spike
Matrix spike Duplicate
Duplicate

* pH, temp, S.C., D.O.
taken in field. Field notes
and results attached

Turn Around Time:
 Normal
 5 business days
Surcharges may apply
 Rush _____ (business days)

PICK-UP USE ONLY:
 Pick-Up Only
 RIAL Sampled
 Shipped on Ice 4616
RIAL W.O. #

APPENDIX C
TIME-SERIES
FOR
UPGRADIENT WELLS

Table 3
UPGRADIENT WELLS
Cumulative Results for Chemicals Of Concern
(Units in ppb)

Well No.	MPS Date Sampled	94 1,2-Dichloro- benzene	1700 Chloro- benzene	1500 o-Chloro- toluene	1700 Toluene	76 Xylenes
MW-004S	6-Mar-96	89	210	1700	2100	300
MW-004S	1-May-96	88	130	1200	1500	160
MW-004S	9-Apr-97	43	44	160	88	100
MW-004S	8-Oct-97	72	41	660	370	480
MW-004S	28-Apr-98	40	220	1200	2700	130
MW-004S	15-Oct-98	100 U	580	300	100 U	100 U
MW-004S	16-Apr-99	50 U	50	50	50 U	730
MW-004S	27-Sep-99	31	93	400	20 U	79
MW-004S	20-Apr-00	74	20 U	20 U	84	20 U
MW-012S	5-Mar-96	4.3 U	2.4 J	2 U	2.8 U	75
MW-012S	2-May-96	4.3 U	1.5 J	2 U	2.8 U	42
MW-012S	10-Apr-97	1 U	1 U	1 U	1 U	1 U
MW-012S	8-Oct-97	1 U	1 U	1 U	1 U	12
MW-012S	28-Apr-98	1 U	1 U	1 U	1 U	65
MW-012S	15-Oct-98	10 U	10 U	10 U	10 U	87
MW-012S	16-Apr-99	10 U	12	10 U	10 U	24
MW-012S	27-Sep-99	58	1 U	1 U	1 U	6
MW-012S	20-Apr-00	1 U	1 U	1 U	1 U	1
MW-021S	6-Mar-96	43 U	30 U	480	12 J	34 U
MW-021S	1-May-96	22 U	5 J	820	15	17 U
MW-021S	10-Apr-97	1 U	1 U	120	1	6
MW-021S	27-Oct-97	30	49	24000	20000	1600
MW-021S	28-Apr-98	1 U	1 U	54	1 U	1 U
MW-021S	15-Oct-98	100 U	100 U	7900	2500	580
MW-021S	16-Apr-99	50 U	50 U	9000	50 U	520
MW-021S	27-Sep-99	40 U	40 U	8100	40 U	40 U
MW-021S	20-Apr-00	40 U	40 U	40 U	40 U	40 U

MPS = Media Protection Standard

U = Nondetect with detection limit given

J = Estimated value

1,2 Dichlorobenzene MPS=94 PPB

Chlorobenzene MPS=1700 PPB

o-chlorotoluene MPS=1500 ppb

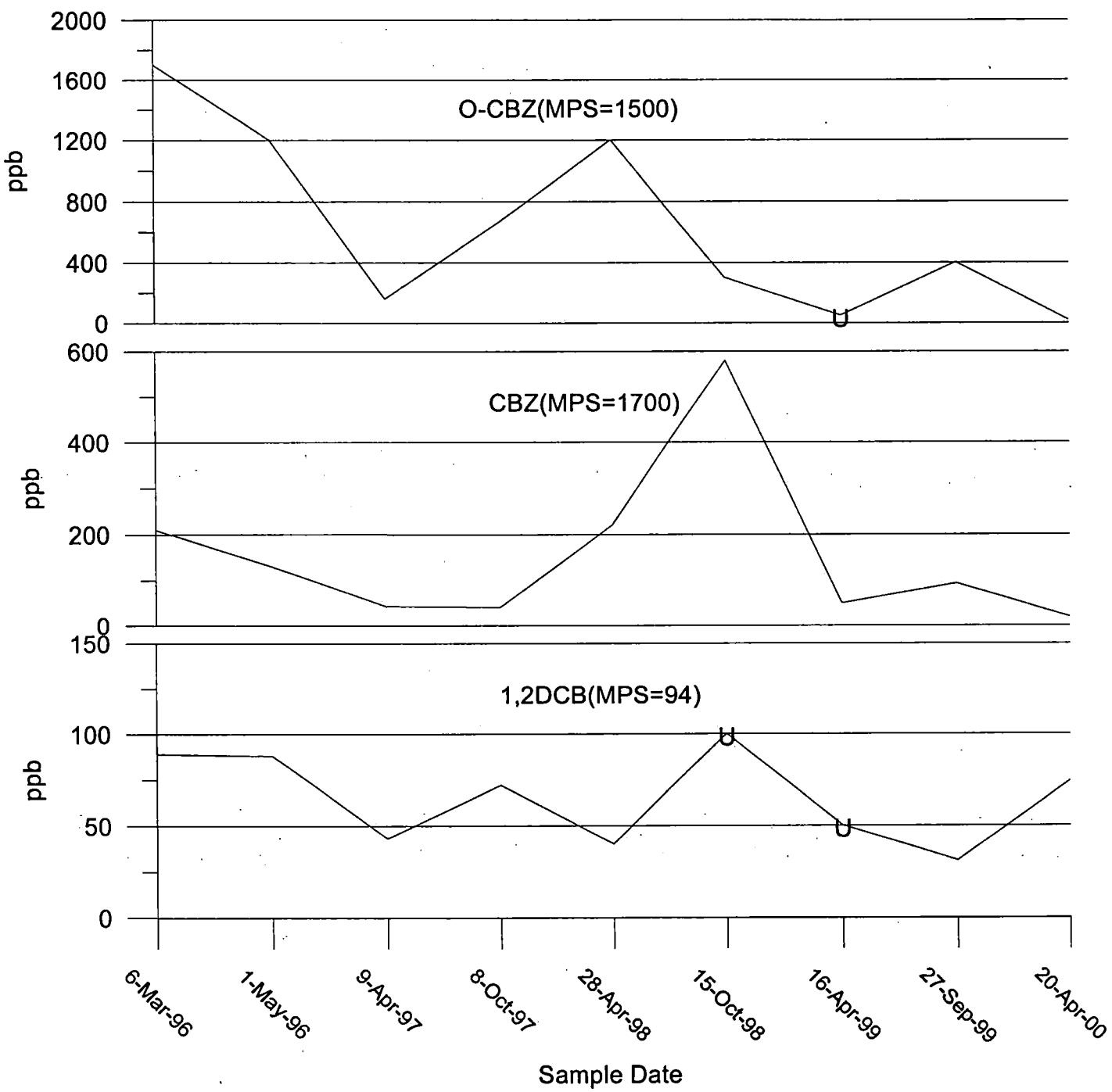
toluene MPS=1700 ppb

xylenes MPS=76 ppb

Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-004S
Upgradient Well

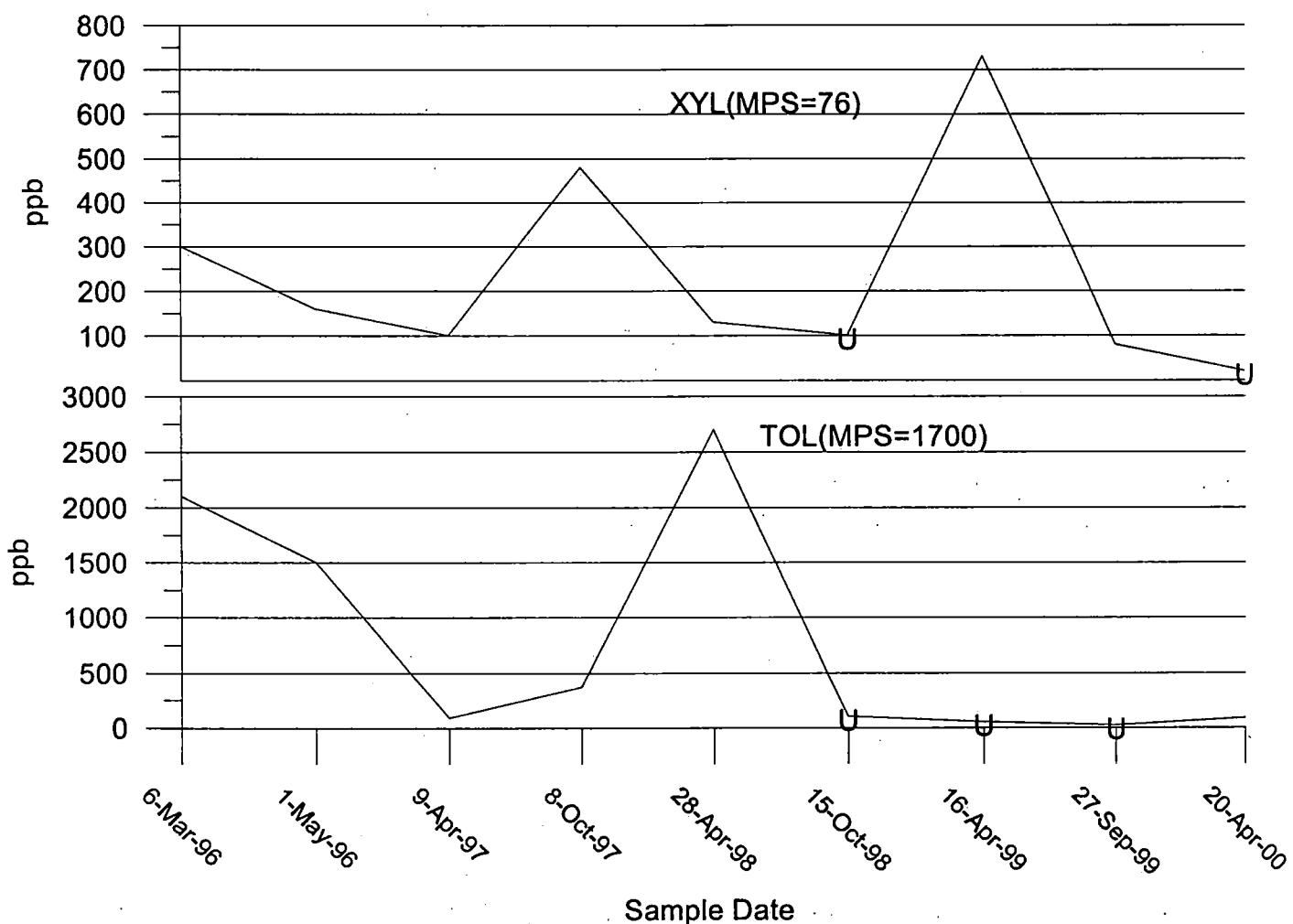
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-004S
Upgradient Well

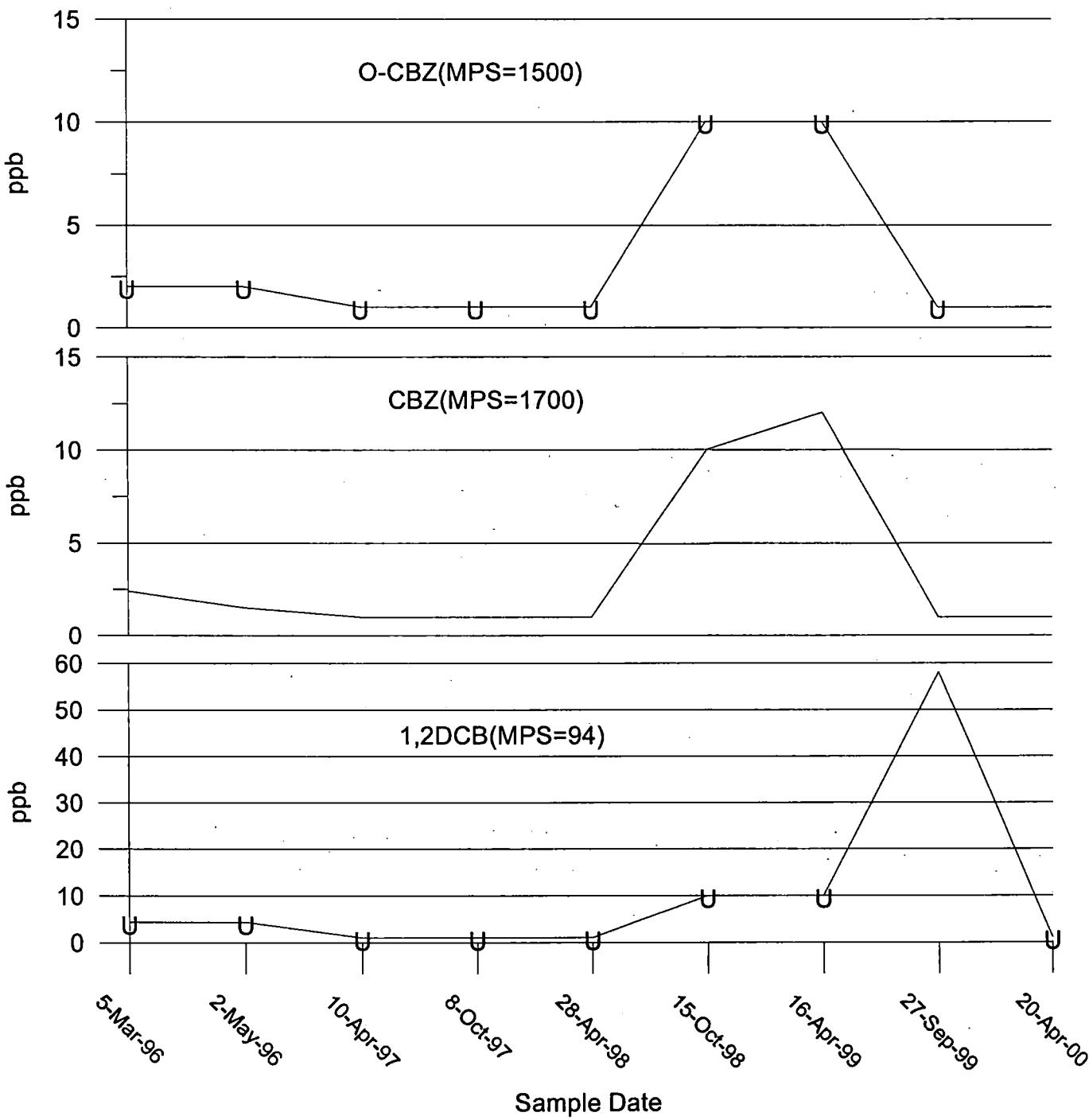
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-012S
Upgradient Well

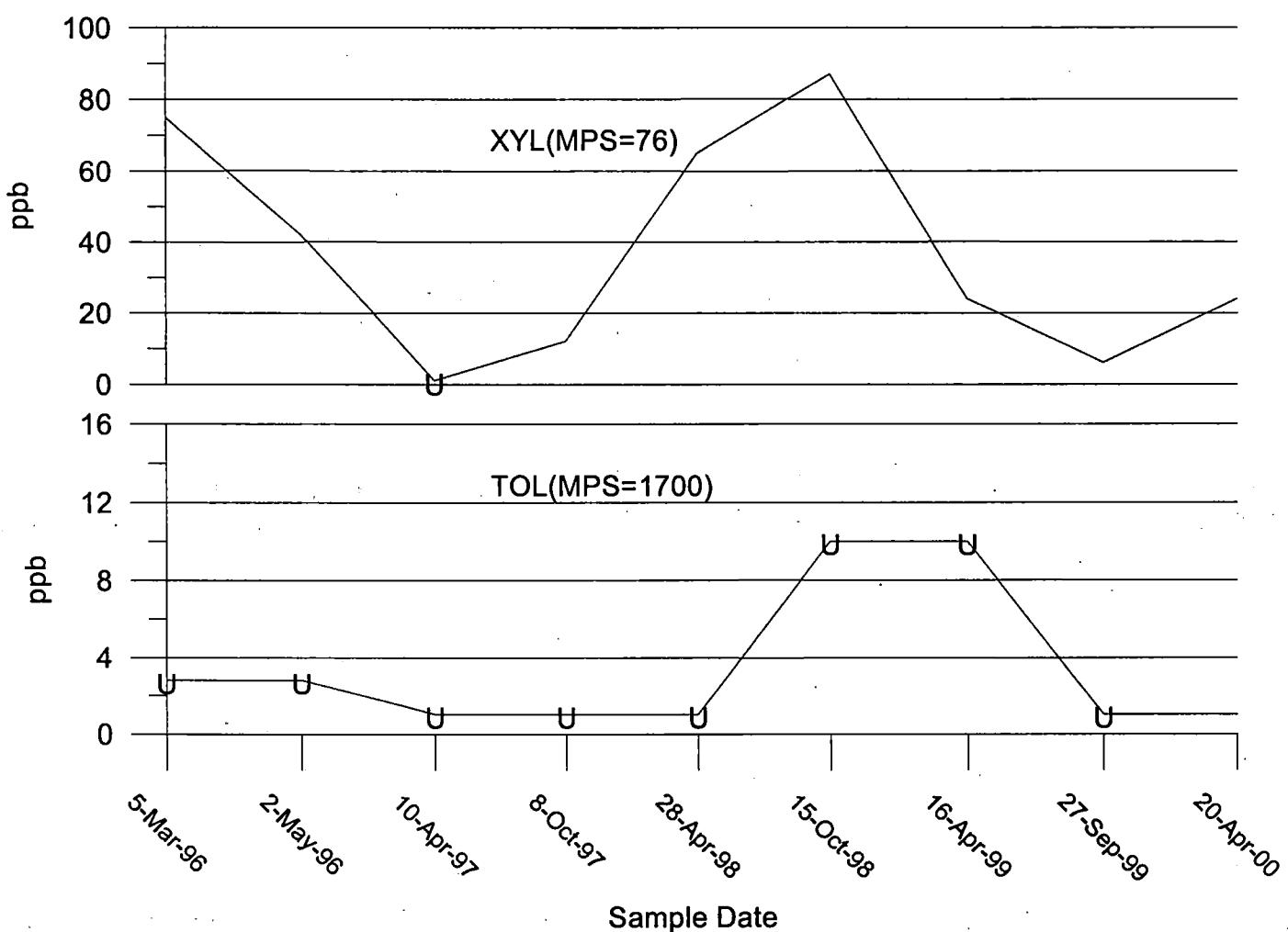
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-012S
Upgradient Well

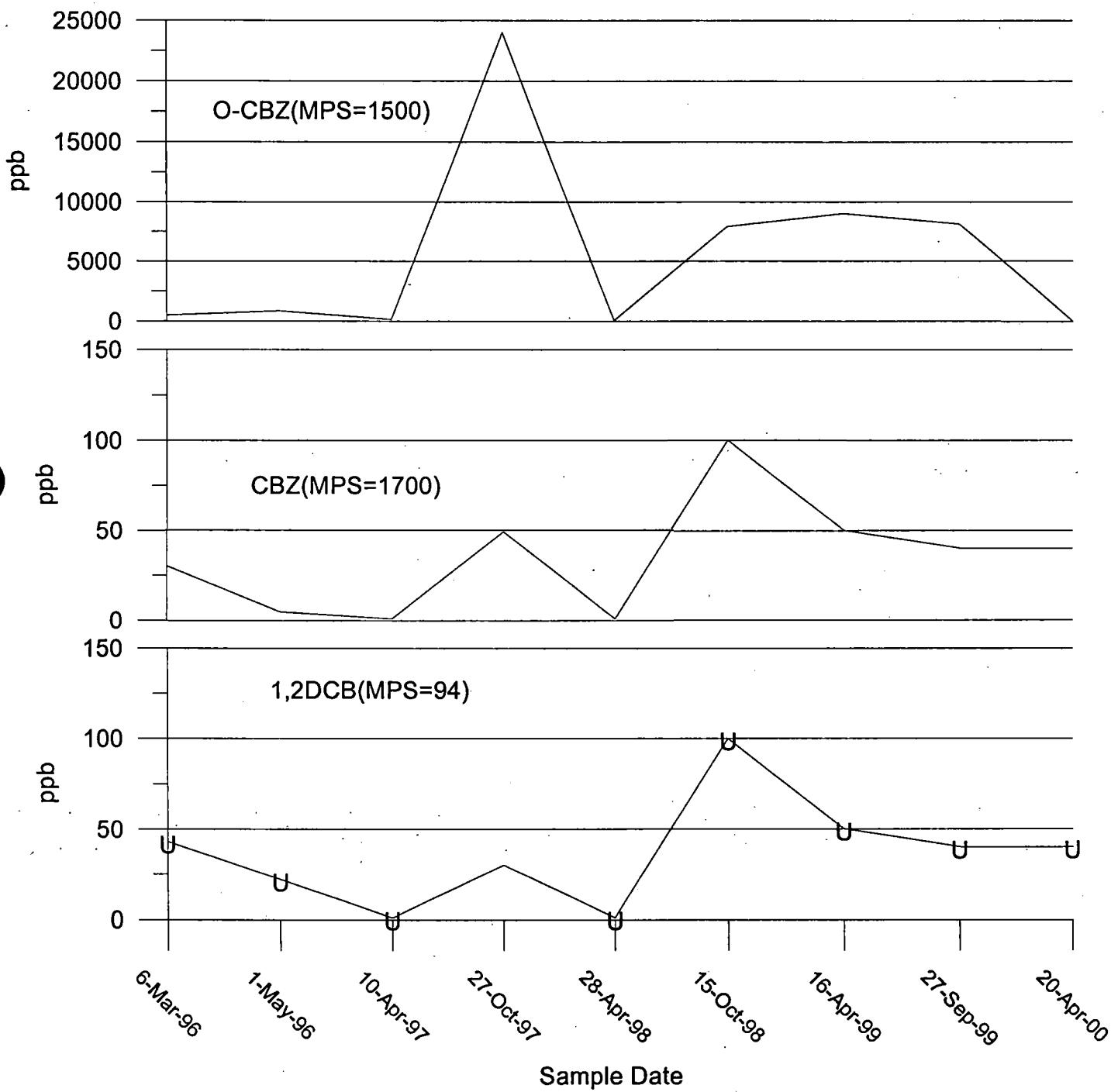
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-021S
Upgradient Well

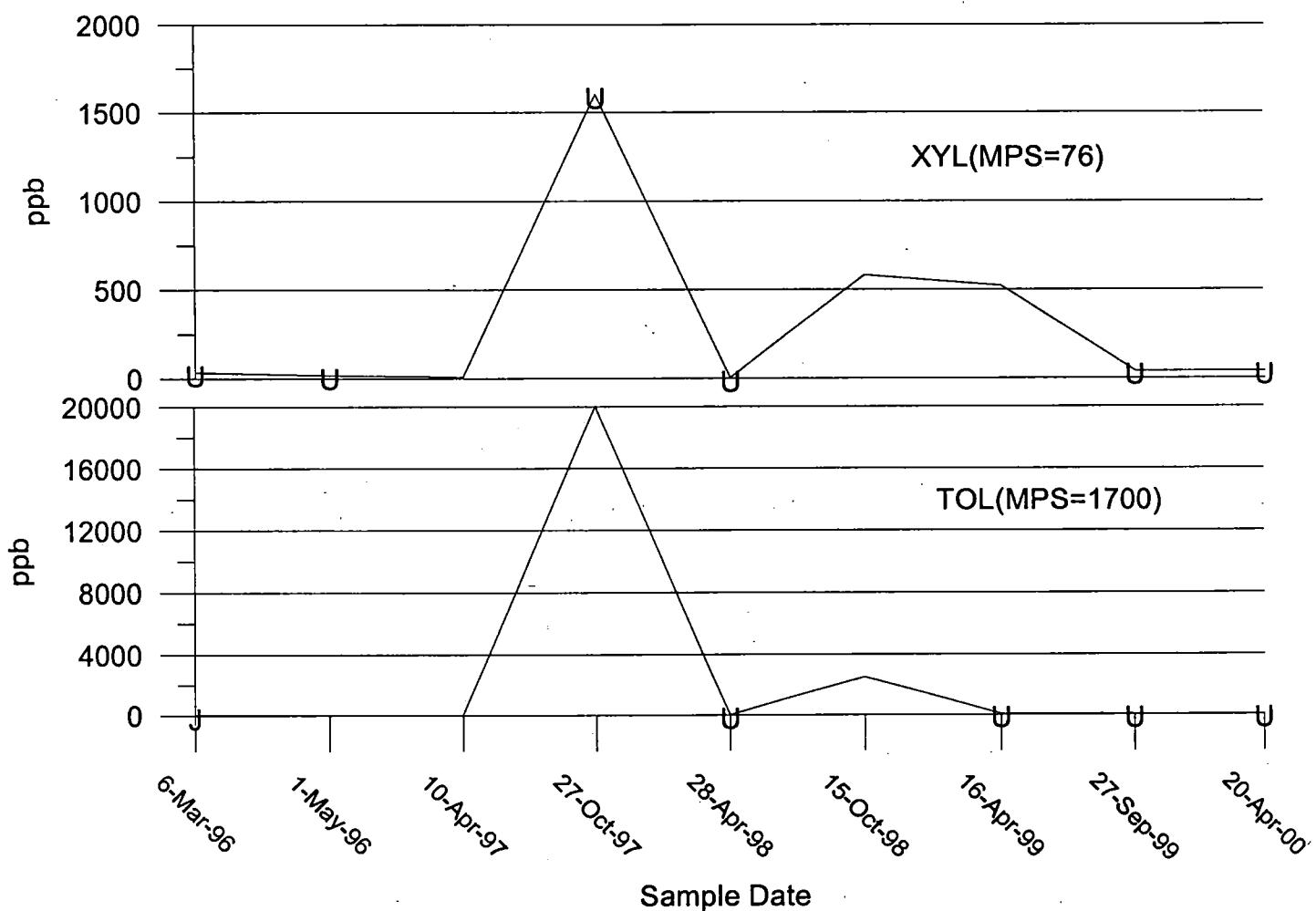
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-021S
Upgradient Well

"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



APPENDIX D
TIME-SERIES GRAPHS
FOR
BULKHEAD WELLS

Table 4
BULKHEAD WELLS
Cumulative Results for Chemicals Of Concern
(Units in ppb)

Well No.	Date Sampled	MPS 94 1,2-Dichloro- benzene	94 Chloro- benzene	1700 o-Chloro- toluene	1700 Toluene	76 Xylenes
MW-001S	6-Mar-96	22 U	2000	10 U	16	18
MW-001S	1-May-96	110 U	5500	50 U	30 J	85 U
MW-001S	10-Apr-97	1	93	1 U	9	7
MW-001S	7-Oct-97	1	640	30	23	2
MW-001S	27-Apr-98	1 U	2800	1 U	1	2
MW-001S	15-Oct-98	100 U	2800	100 U	100 U	100 U
MW-001S	16-Apr-99	50 U	1100	50 U	50 U	50 U
MW-001S	27-Sep-99	40 U	2300	40 U	40 U	40 U
MW-001S	20-Apr-00	40 U	40 U	40 U	40 U	40 U
MW-002S	5-Mar-96	340	3200	50 U	200	85 U
MW-002S	30-Apr-96	44 J	2500	50 U	52 J	85 U
MW-002S	8-Apr-97	20	64	1 U	46	18
MW-002S	7-Oct-97	90	440	100	97	31
MW-002S	27-Apr-98	22	500	1 U	88	28
MW-002S	15-Oct-98	28	5200	1 U	92	34
MW-002S	16-Apr-99	140	2260	10 U	420	33
MW-002S	27-Sep-99	43	40 U	40 U	40 U	40 U
MW-002S	20-Apr-00	1340	12000	150	830	120
P-035S	8-Apr-97	22	74	1 U	4	12
P-035S	7-Oct-97	240	710	2	10	12
P-035S	27-Apr-98	42	360	1 U	2	10
P-035S	15-Oct-98	140	2100	10 U	130	80
P-035S	16-Apr-99	20	480	10 U	10 U	10 U
P-035S	27-Sep-99	40 U	40 U	40 U	40 U	40 U
P-035S	20-Apr-00	4580	77000	300	160	56
P-036S	6-Mar-96	22 U	440	10 U	14 U	17 U
P-036S	1-May-96	22 U	460	30	14 U	17 U
P-036S	8-Apr-97	1 U	72	1 U	1 U	2
P-036S	7-Oct-97	1 U	35	9	2	1 U
P-036S	27-Apr-98	1 U	260	1 U	1 U	1 U
P-036S	15-Oct-98	1 U	230	1 U	1 U	1
P-036S	16-Apr-99	10 U	200	10 U	10 U	10 U
P-036S	27-Sep-99	10 U	450	10 U	10 U	10 U
P-036S	20-Apr-00	1 U	290	1 U	1 U	1 U
P-037S	9-Apr-97	2 U	54	16	1 U	1
P-037S	8-Oct-97	2	50	13	1 U	1 U
P-037S	28-Apr-98	.2	420	8	1 U	1 U
P-037S	15-Oct-98	30 U	540	30 U	30 U	30 U
P-037S	16-Apr-99	10 U	210	10 U	10 U	10 U
P-037S	27-Sep-99	10 U	660	10 U	10 U	10 U
P-037S	20-Apr-00	1 U	460	5	1 U	1 U
P-038S	6-Mar-96	4.3 U	2.4 J	2 U	1.3 J	3.4 U
P-038S	1-May-96	4.3 U	1.2 J	2 U	2.8 U	3.4 U
P-038S	9-Apr-97	1 U	1 U	1 U	1 U	1 U
P-038S	8-Oct-97	1 U	1 U	1 U	1 U	1 U
P-038S	28-Apr-98	1 U	1 U	1 U	1 U	1 U
P-038S	15-Oct-98	1 U	2	1 U	1 U	1 U
P-038S	16-Apr-99	1 U	1 U	1 U	1 U	1 U
P-038S	27-Sep-99	1 U	1	1 U	1 U	1 U
P-038S	20-Apr-00	1 U	1 U	1 U	1 U	1 U

MPS = Media Protection Standard

U = Nondetect with detection limit given

J = Estimated value

1,2 Dichlorobenzene MPS=94 PPB

Chlorobenzene MPS=1700 PPB

o-chlorotoluene MPS=1500 ppb

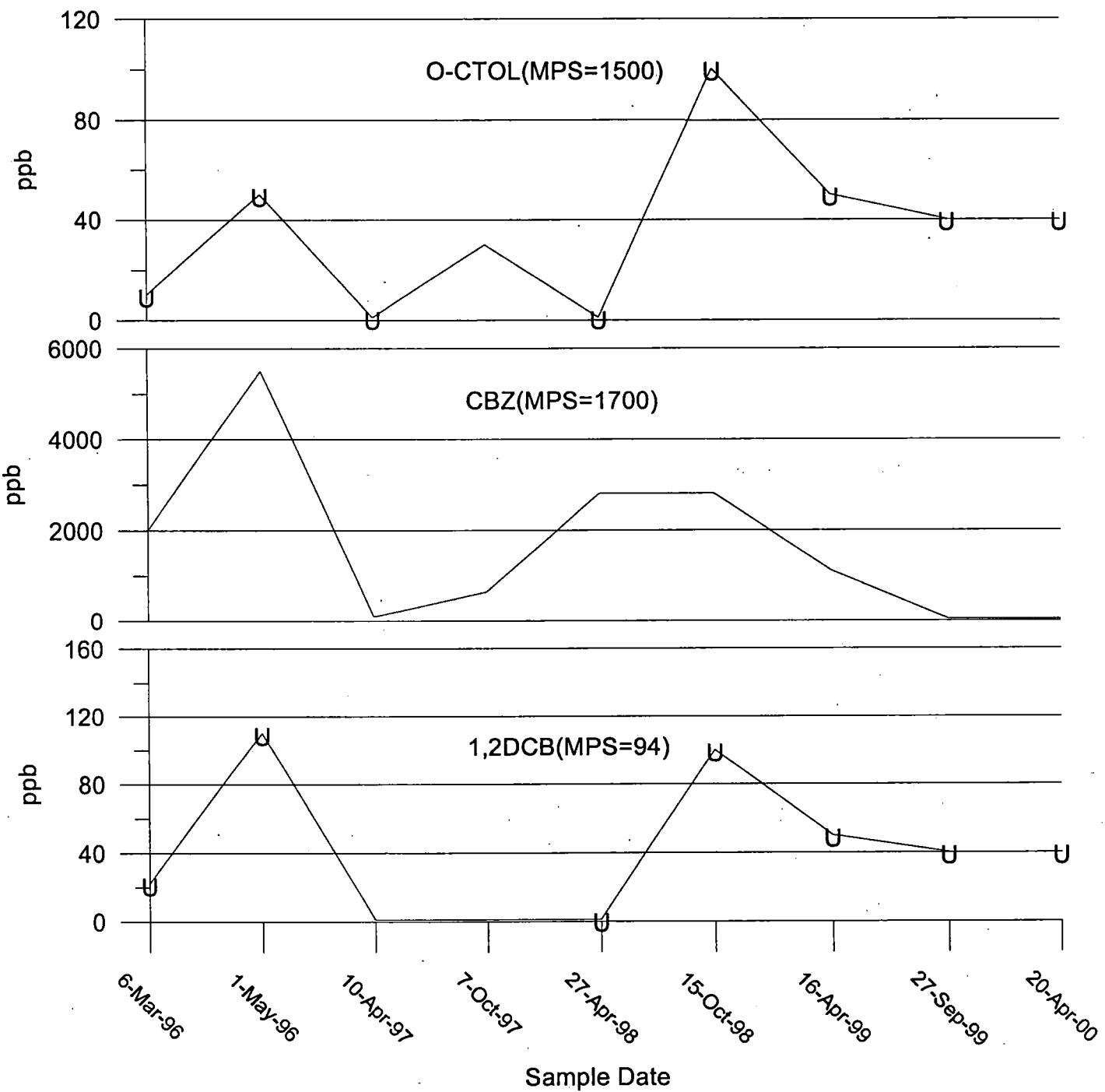
toluene MPS=1700 ppb

xylenes MPS=76 ppb

Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-001S
Along Bulkhead

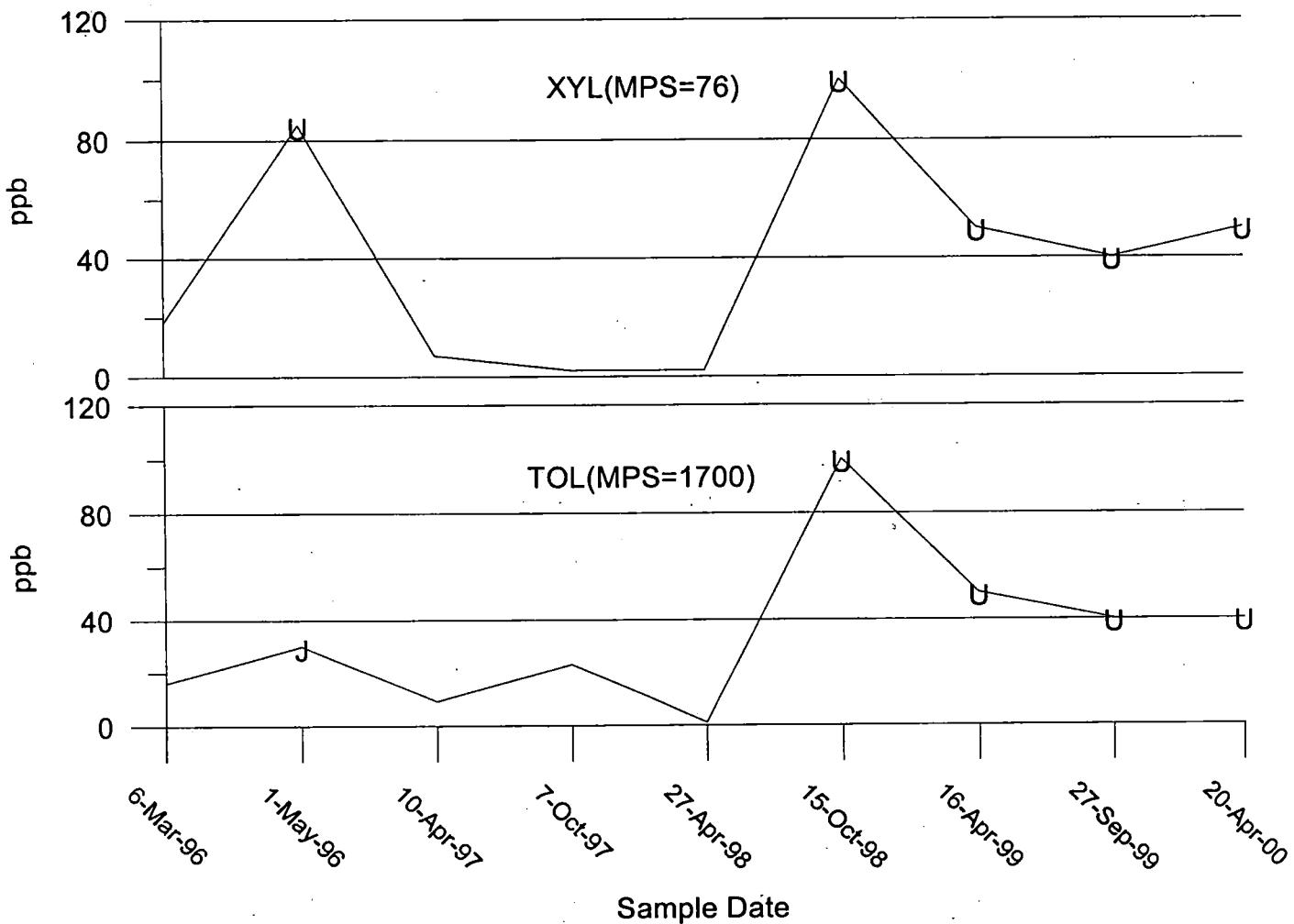
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-001S
Along Bulkhead

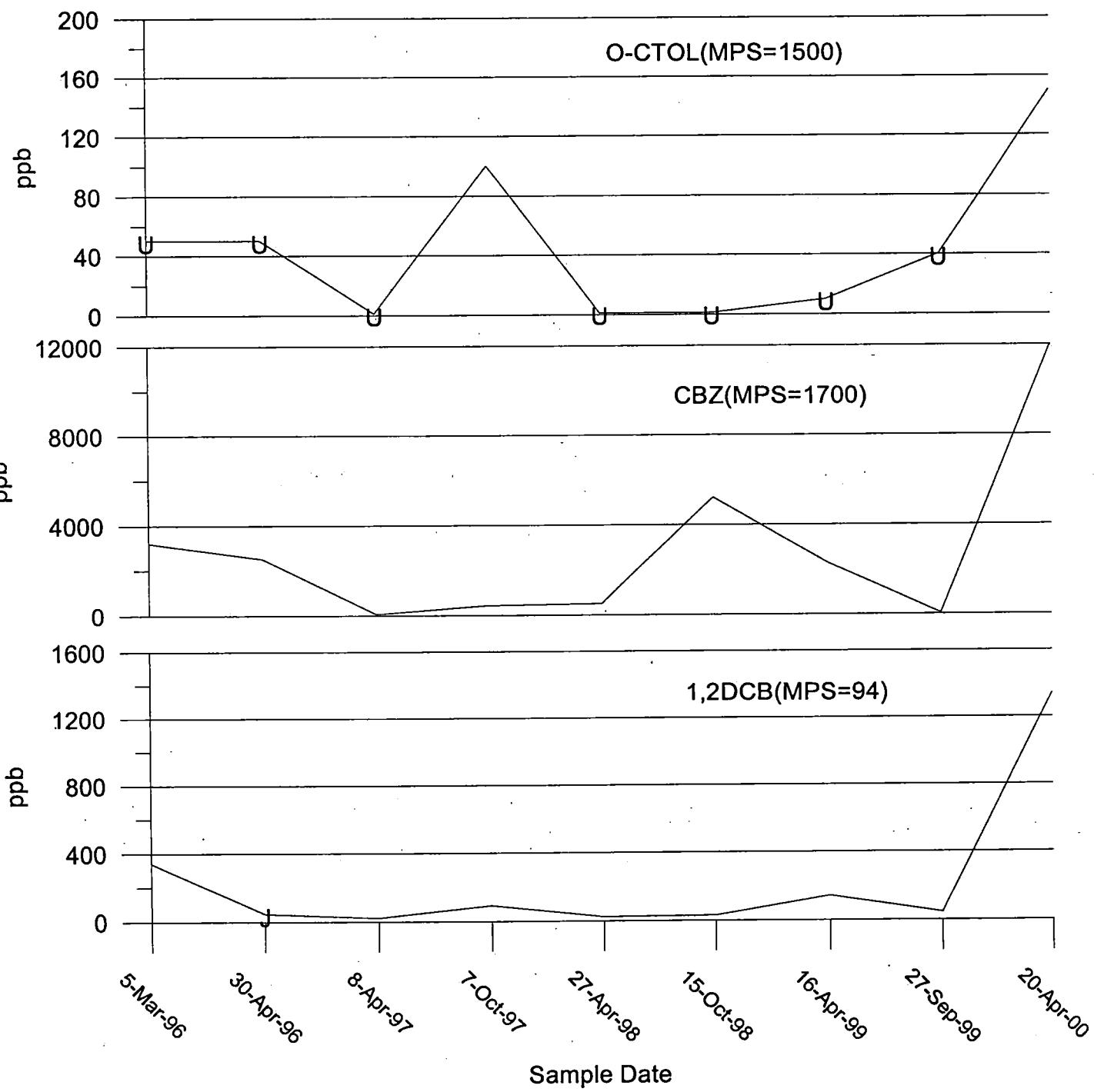
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-002S
Along Bulkhead

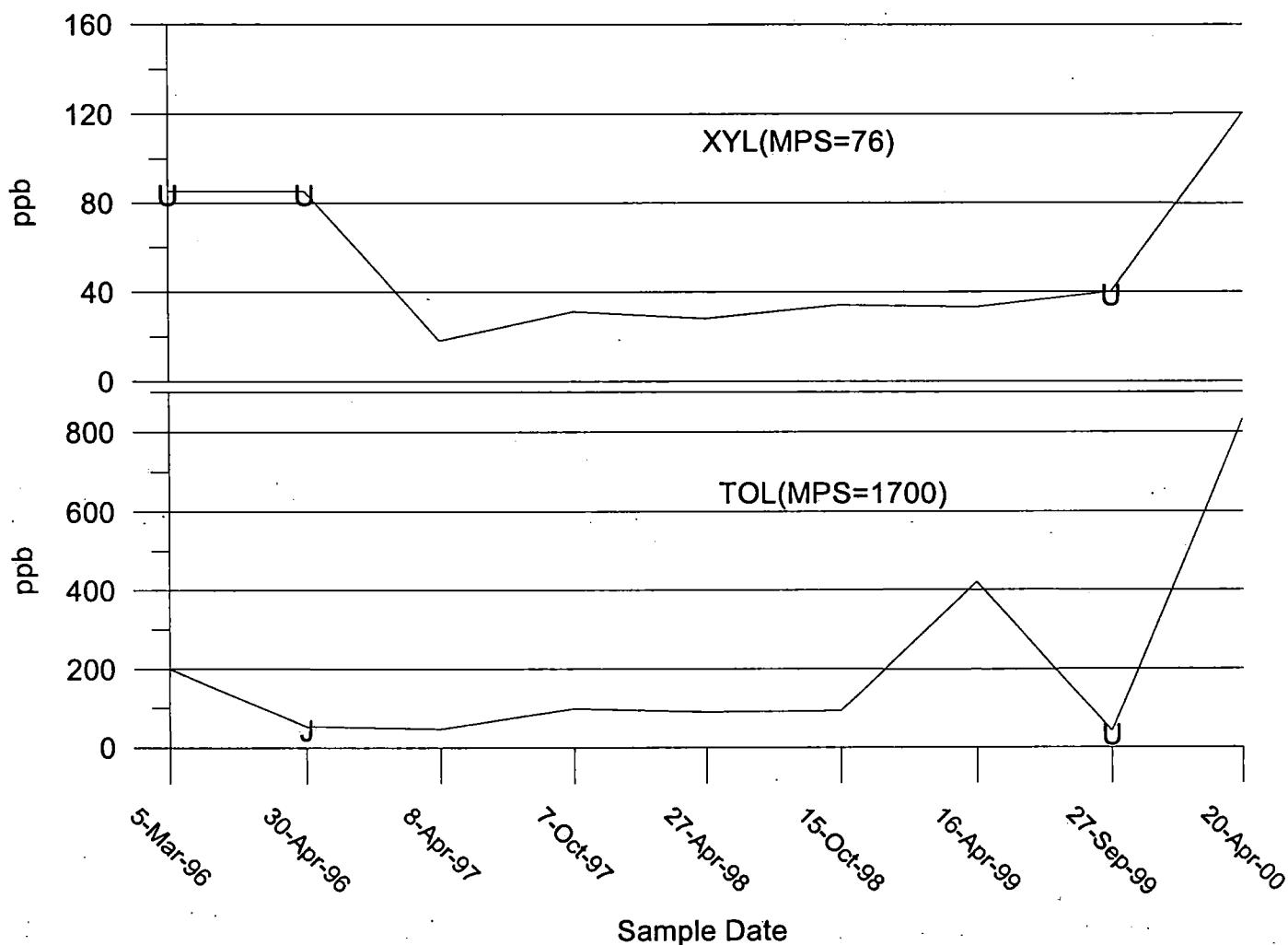
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well MW-002S
Along Bulkhead

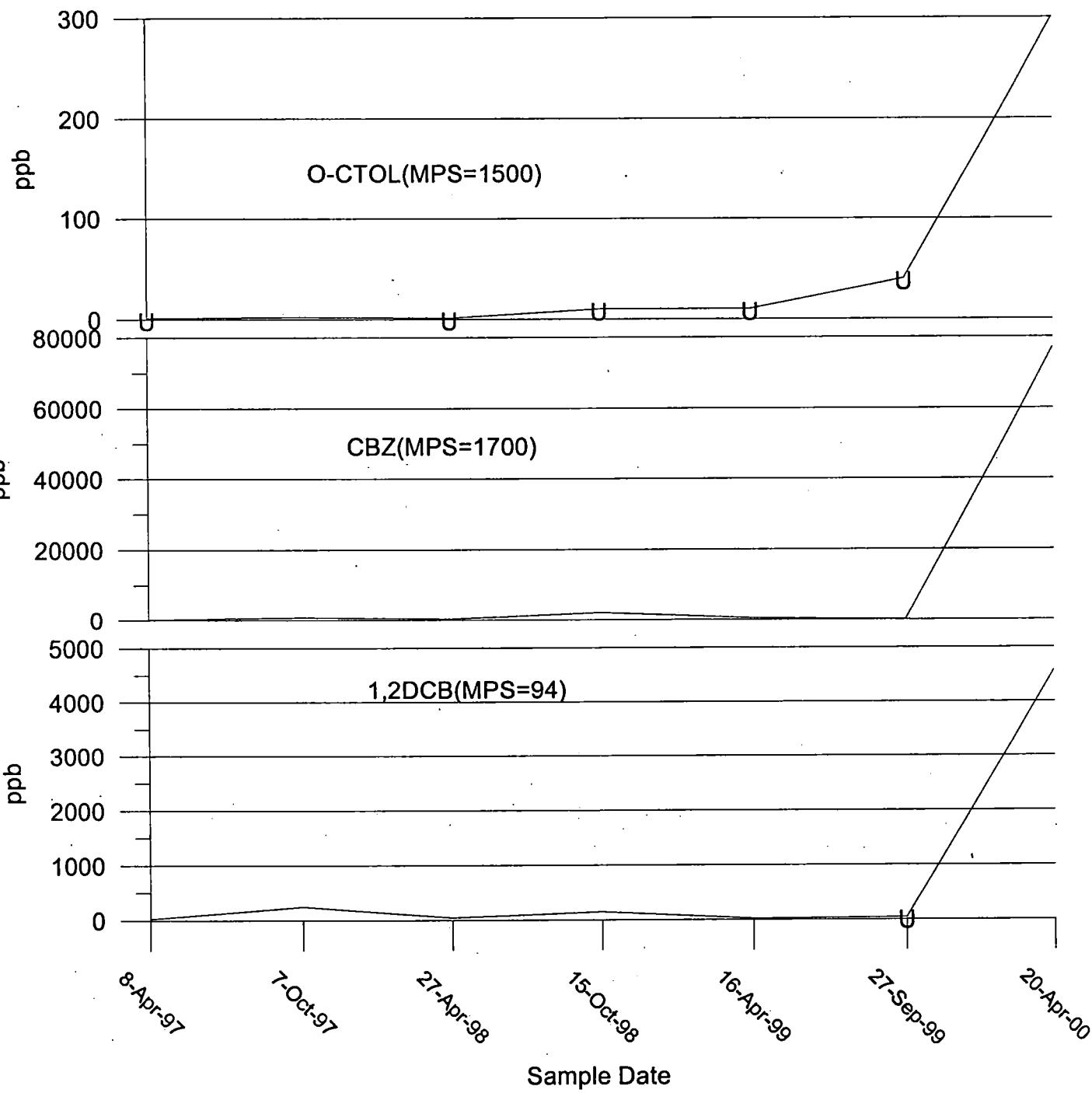
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well P-035S
Along Bulkhead

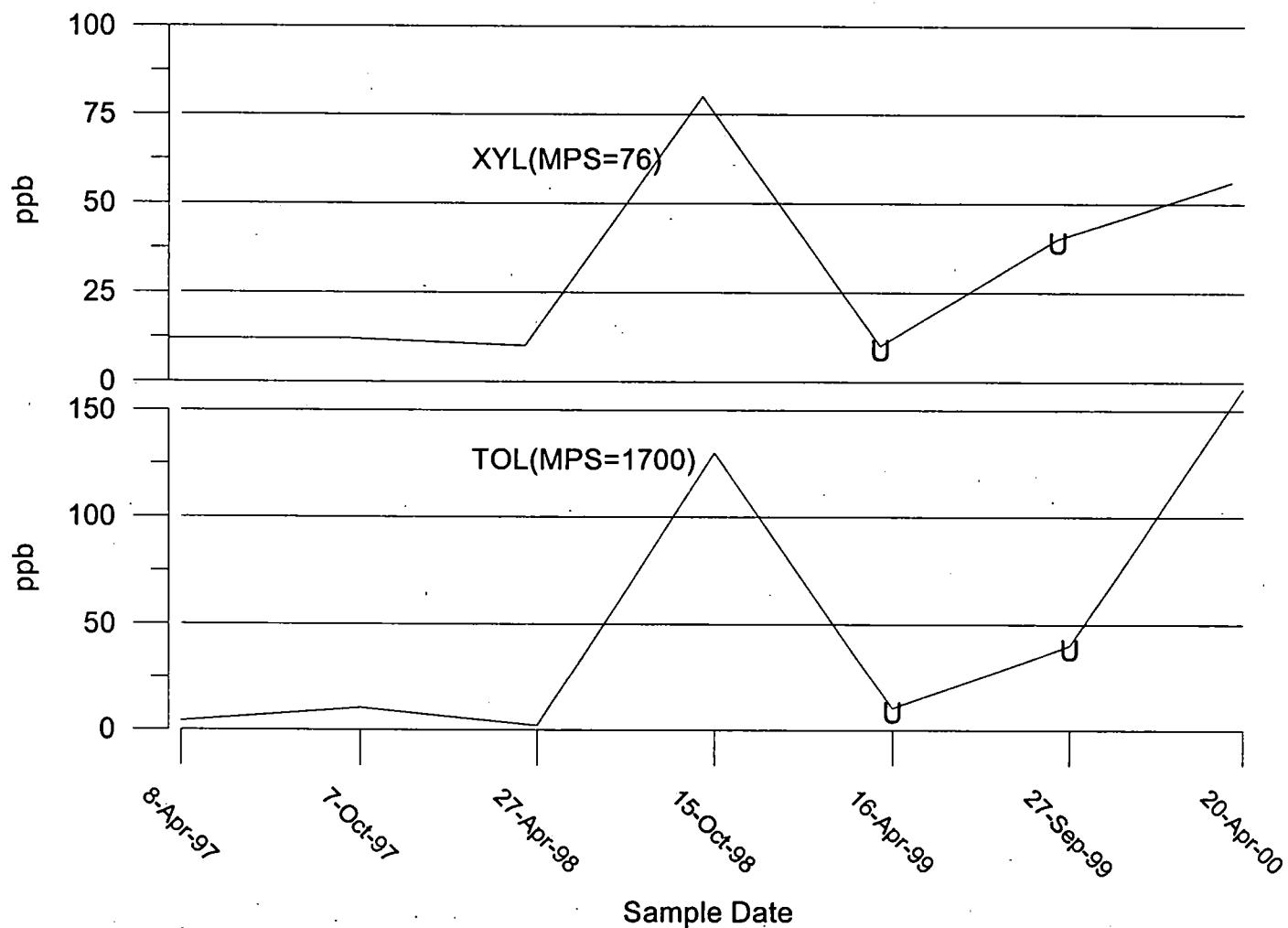
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well P-035S
Along Bulkhead

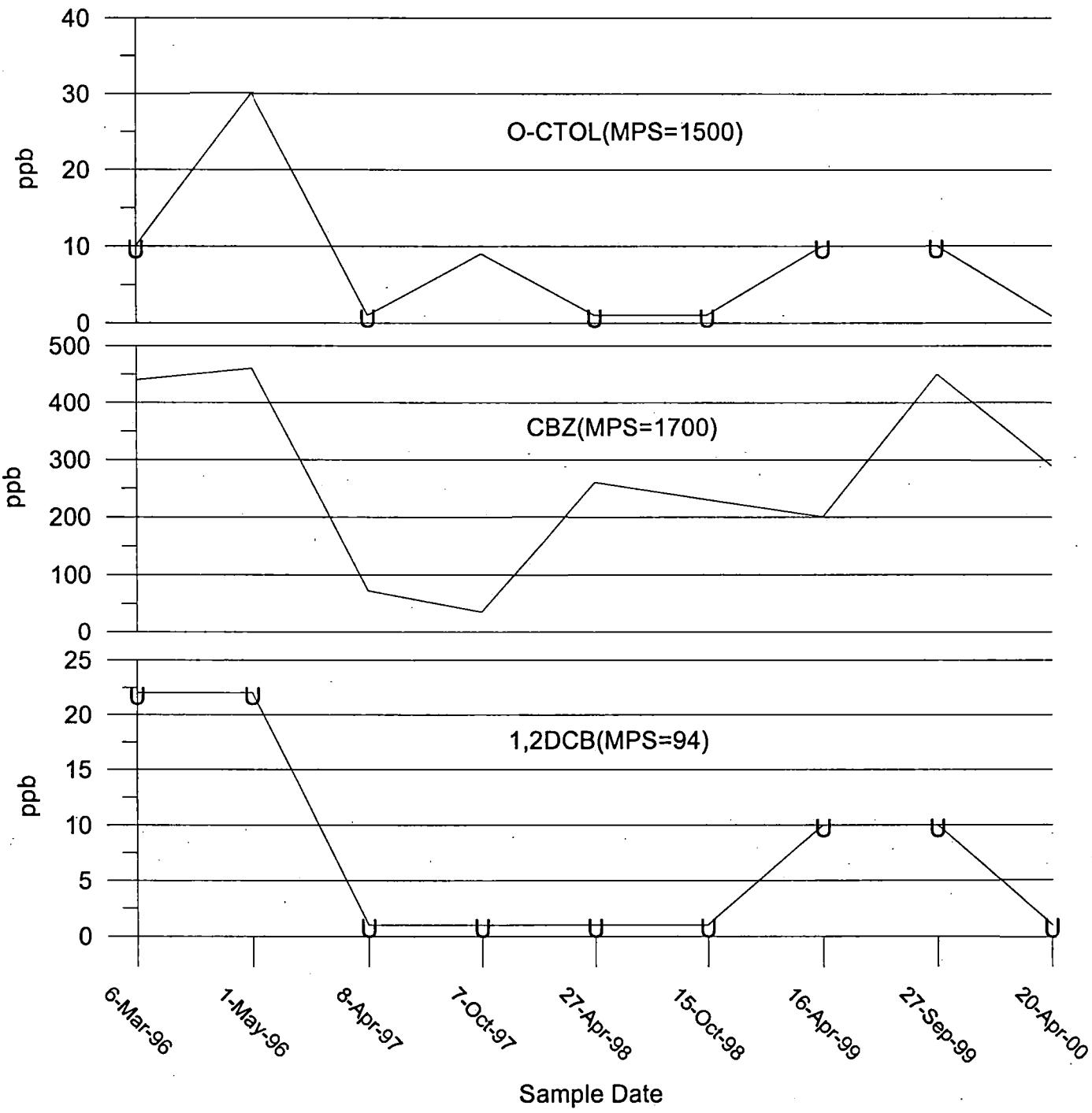
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well P-036S
Along Bulkhead

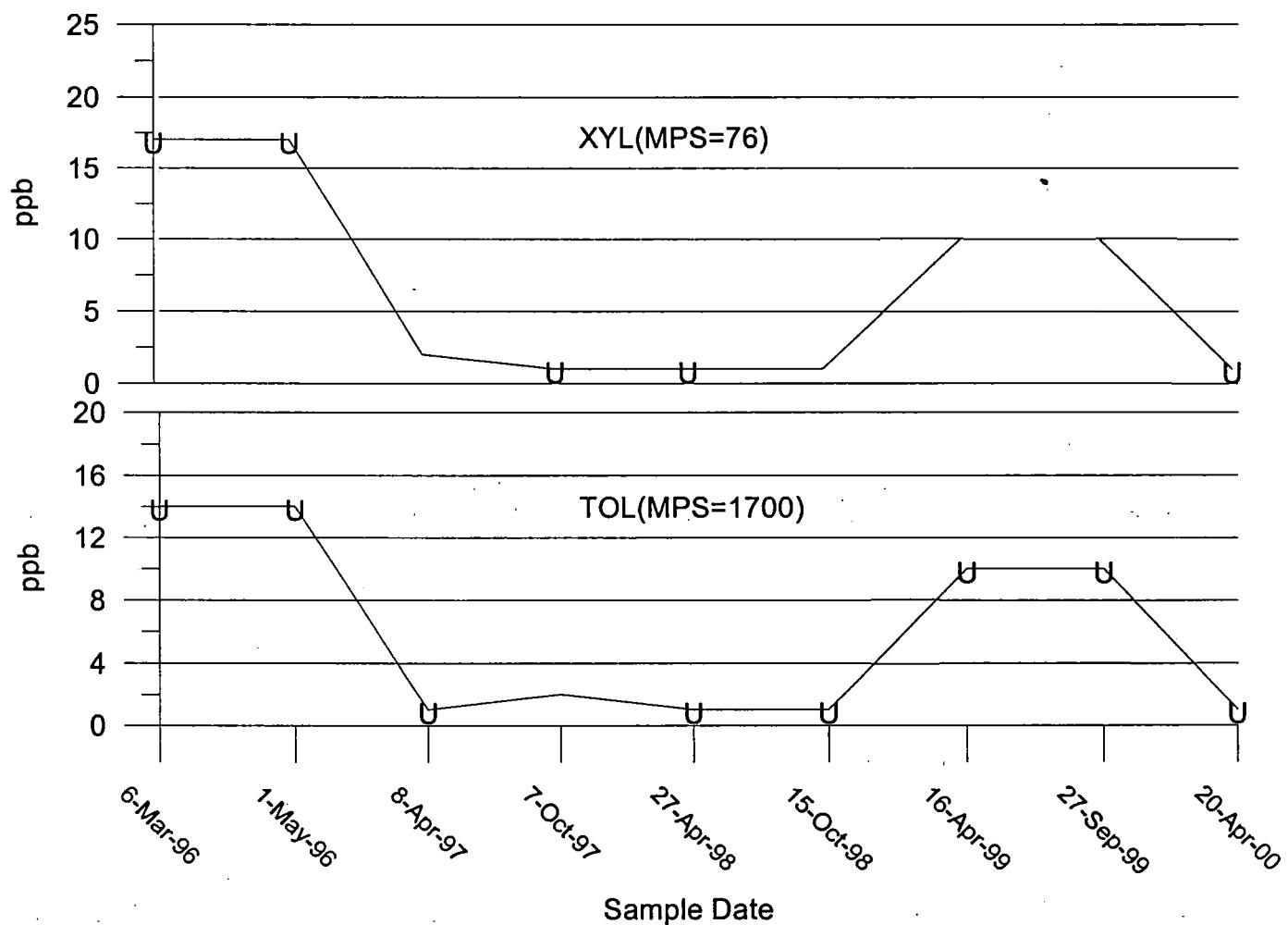
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well P-036S
Along Bulkhead

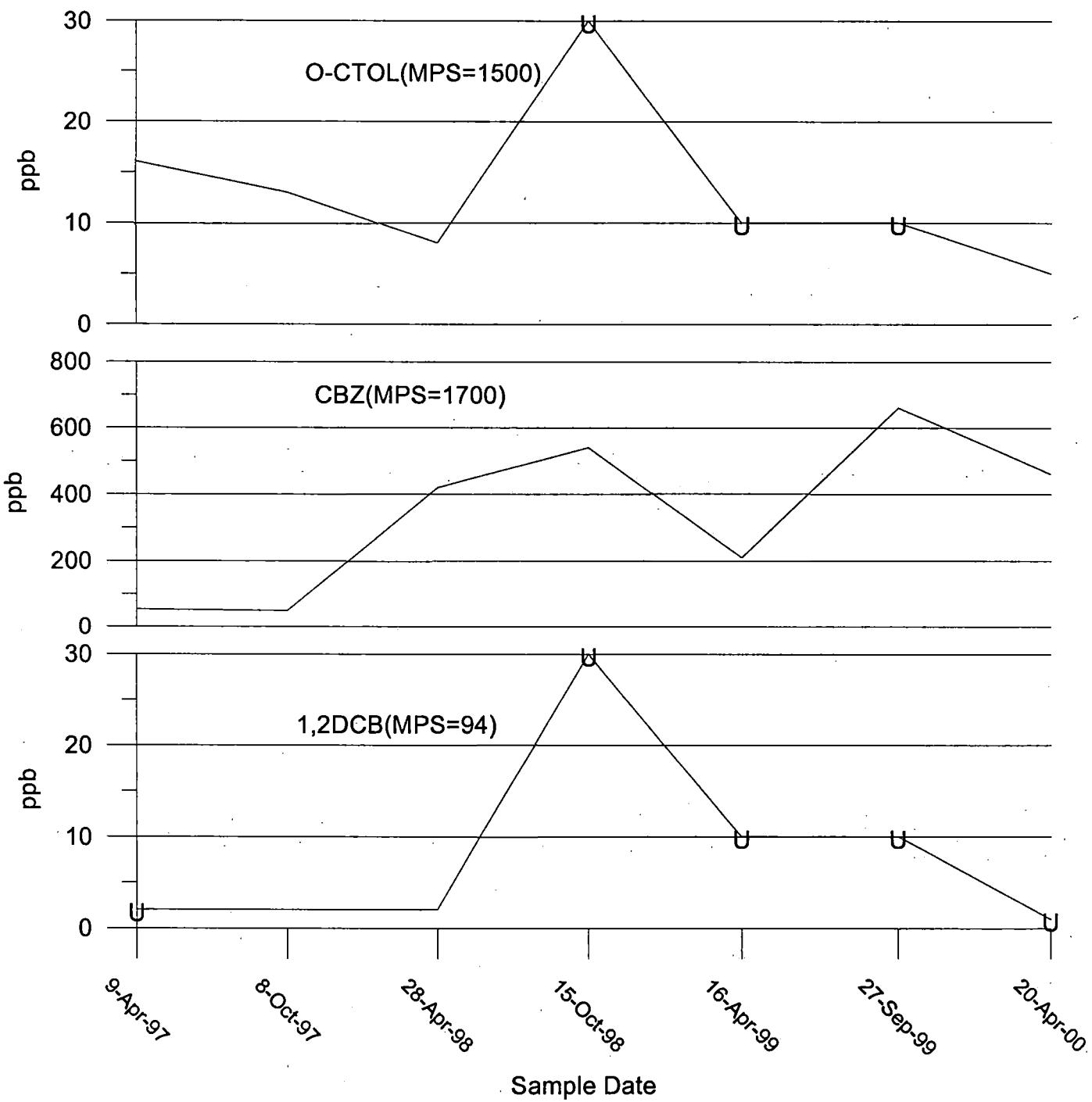
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well P-037S
Along Bulkhead

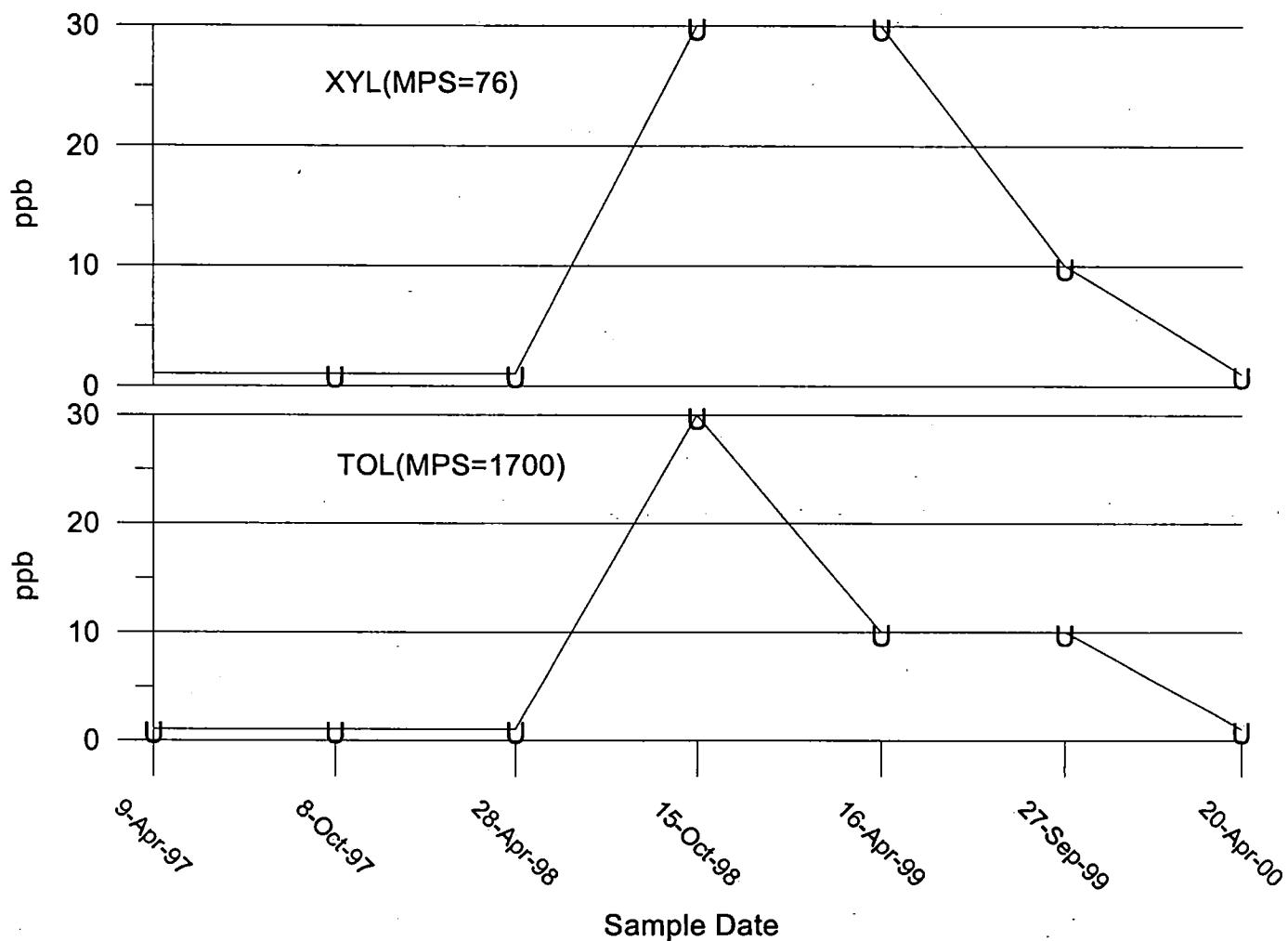
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well P-037S
Along Bulkhead

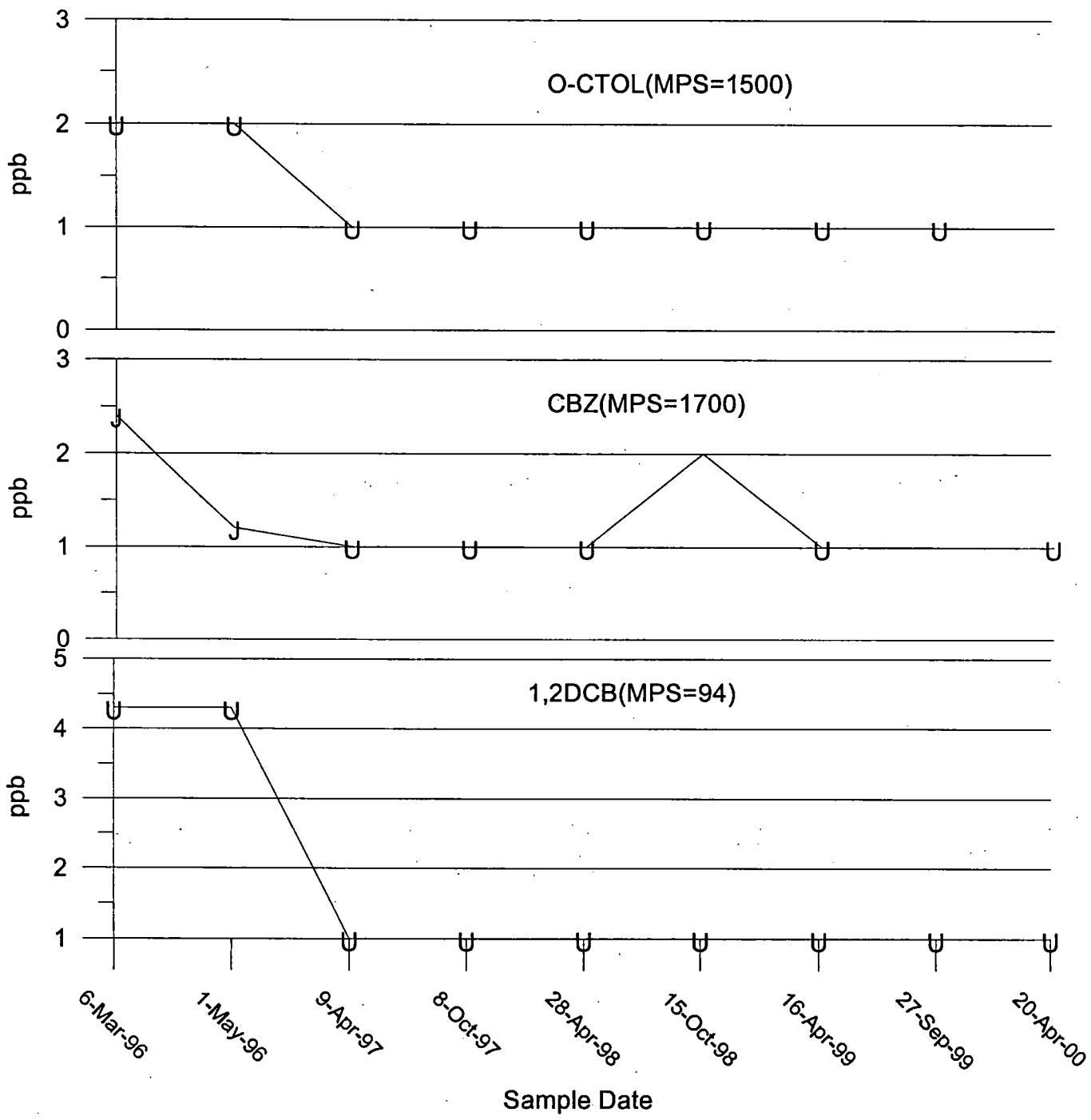
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well P-038S
Along Bulkhead

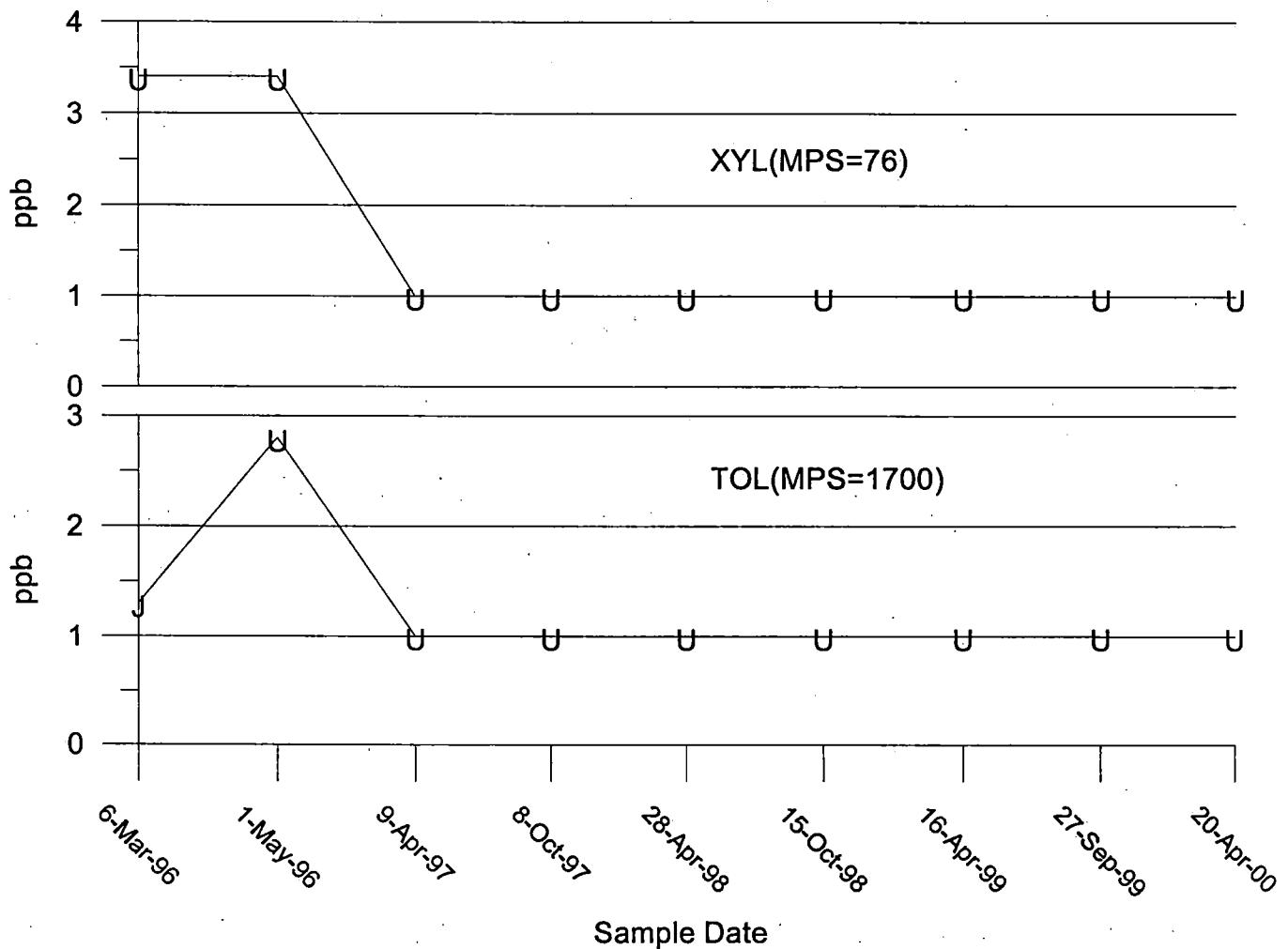
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well P-038S
Along Bulkhead

"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



APPENDIX E
TIME-SERIES GRAPHS
FOR
IN-RIVER WELLS

Table 5
IN-RIVER WELLS
Cumulative Results for Chemicals Of Concern
(Units in ppb)

Well No.	Date Sampled	MPS 94 1,2-Dichloro-benzene	1700 Chloro-benzene	1500 o-Chloro-toluene	1700 Toluene	76 Xylenes
SW-110	6-Mar-96	54	1600	55	460	34 U
SW-110	2-May-96	63 J	1600	40 U	220	68 U
SW-110	10-Apr-97	23	110	1	62	8
SW-110	8-Oct-97	1 U	1 U	1 U	1 U	1 U
SW-110	27-Apr-98	21	1100	2	170	6
SW-110	15-Oct-98	100 U	440	100 U	100 U	100 U
SW-110	16-Apr-99	50 U	670	50 U	50 U	50 U
SW-110	27-Sep-99	40 U	40 U	40 U	40 U	40 U
SW-110	27-Sep-99	40 U	40 U	40 U	40 U	40 U
SW-110	20-Apr-00	47	20 U	91	380	20 U
SW-120	5-Mar-96	4.3 U	63	2 U	2.8 U	3.4 U
SW-120	30-Apr-96	4.3 U	70	2 U	2.8 U	3.4 U
SW-120	8-Apr-97	1 U	43	1 U	1 U	1 U
SW-120	7-Oct-97	1	39	39	31	2
SW-120	27-Apr-98	1 U	54	1 U	1 U	1 U
SW-120	15-Oct-98	1 U	36	1 U	1 U	1 U
SW-120	16-Apr-99	10 U	92	10 U	10 U	10 U
SW-120	27-Sep-99	10 U	68	10 U	10 U	10 U
SW-120	20-Apr-00	1 U	67	1 U	1 U	1 U
SW-130	6-Mar-96	4.3 U	3 U	6.5	2.8 U	3.4 U
SW-130	1-May-96	4.3 U	3 U	12	2.8 U	3.4 U
SW-130	9-Apr-97	1 U	1	12	1 U	1 U
SW-130	7-Oct-97	1 U	1 U	2	1 U	1 U
SW-130	27-Apr-98	1 U	27	14	1 U	1 U
SW-130	15-Oct-98	1 U	1 U	1	1 U	1 U
SW-130	16-Apr-99	1 U	5	5	1 U	1 U
SW-130	27-Sep-99	1 U	1	2	1 U	1 U
SW-130	20-Apr-00	1	10	30	1 U	1

MPS = Media Protection Standard

U = Nondetect with detection limit given

J = Estimated value

1,2 Dichlorobenzene MPS=94 PPB

Chlorobenzene MPS=1700 PPB

o-chlorotoluene MPS=1500 ppb

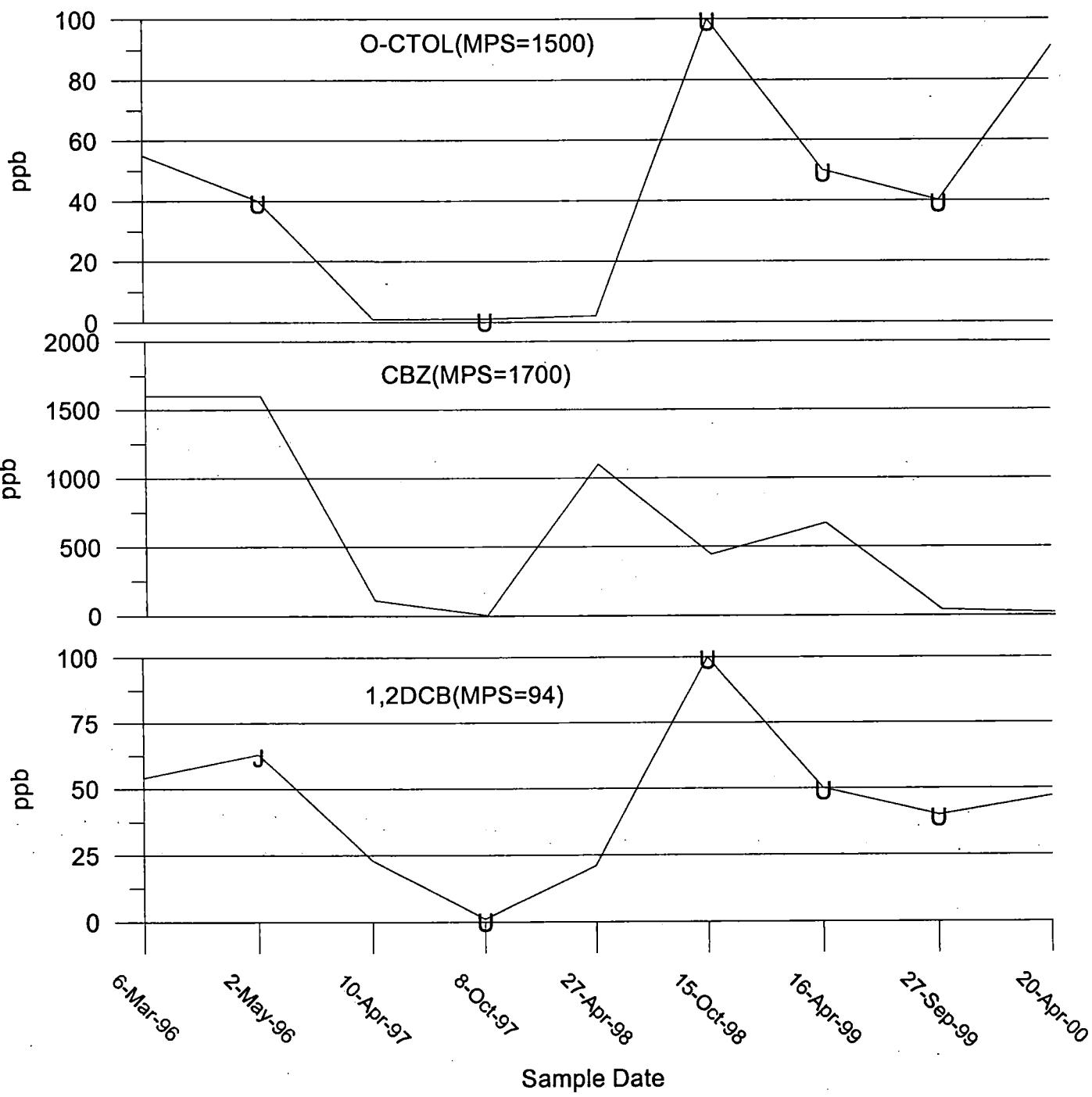
toluene MPS=1700 ppb

xylanes MPS=76 ppb

Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well SW-110
In-River Wells

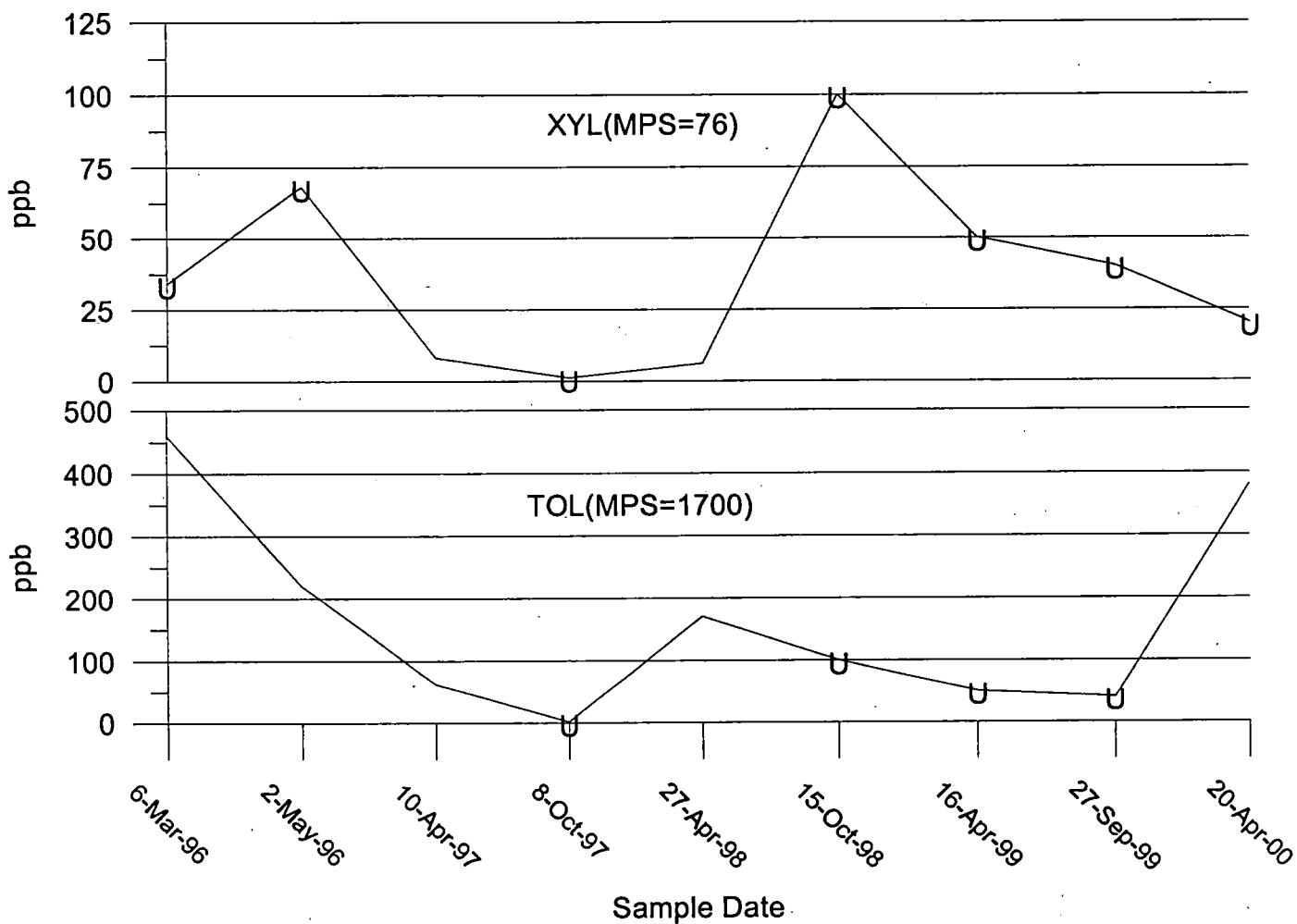
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well SW-110
In-River Well

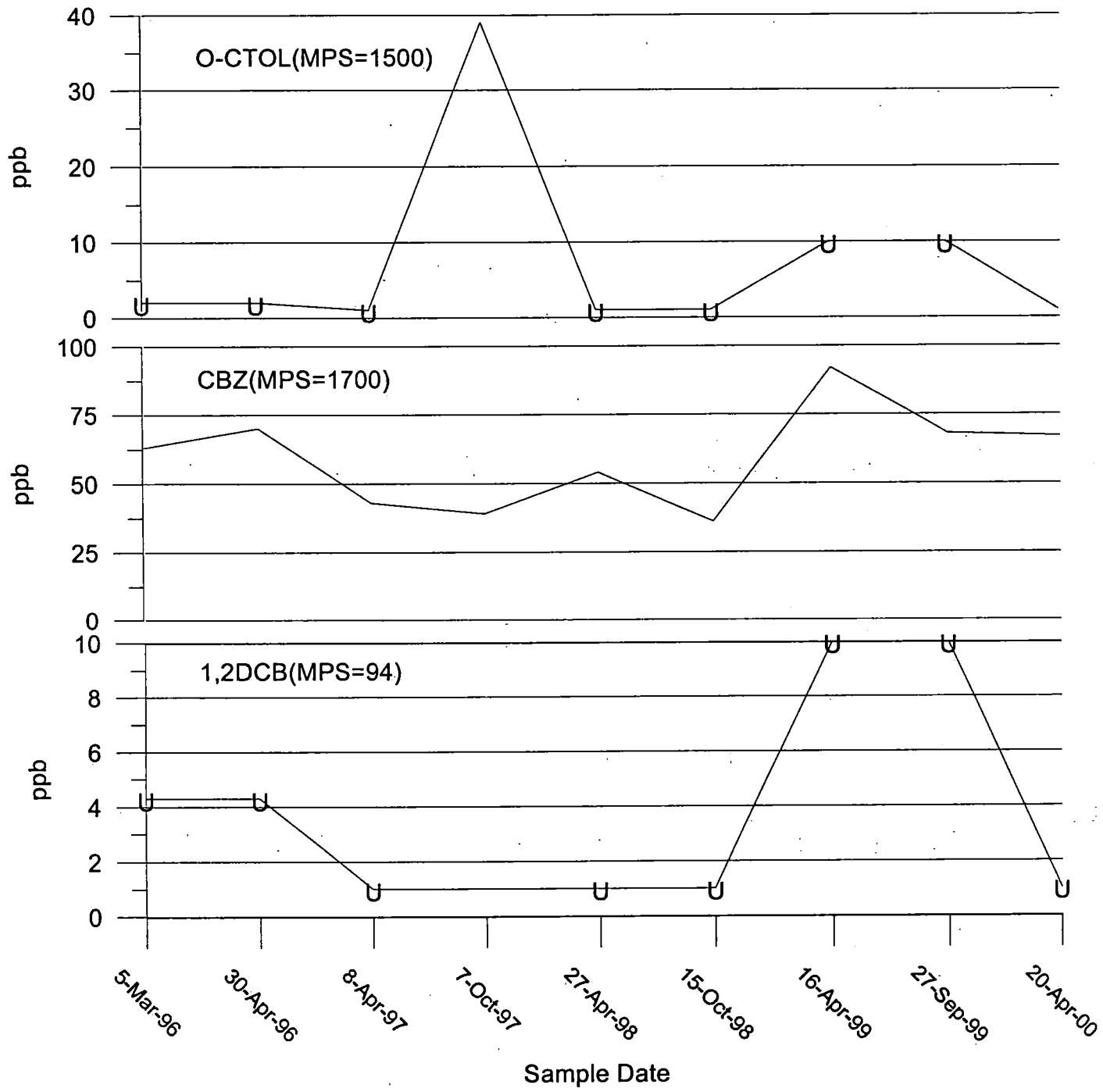
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"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well SW-120
In-River Well

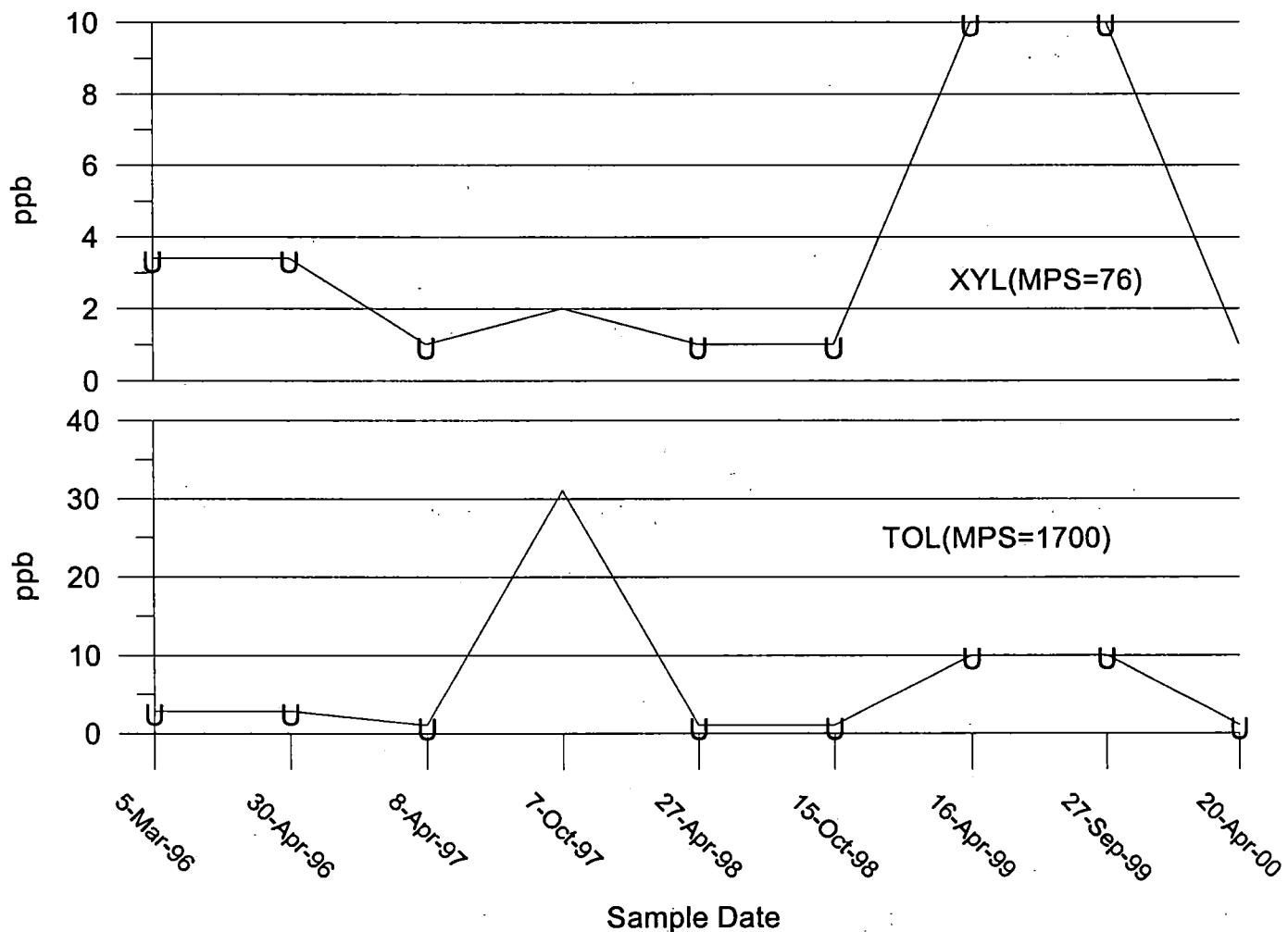
"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well SW-120
In-River Well

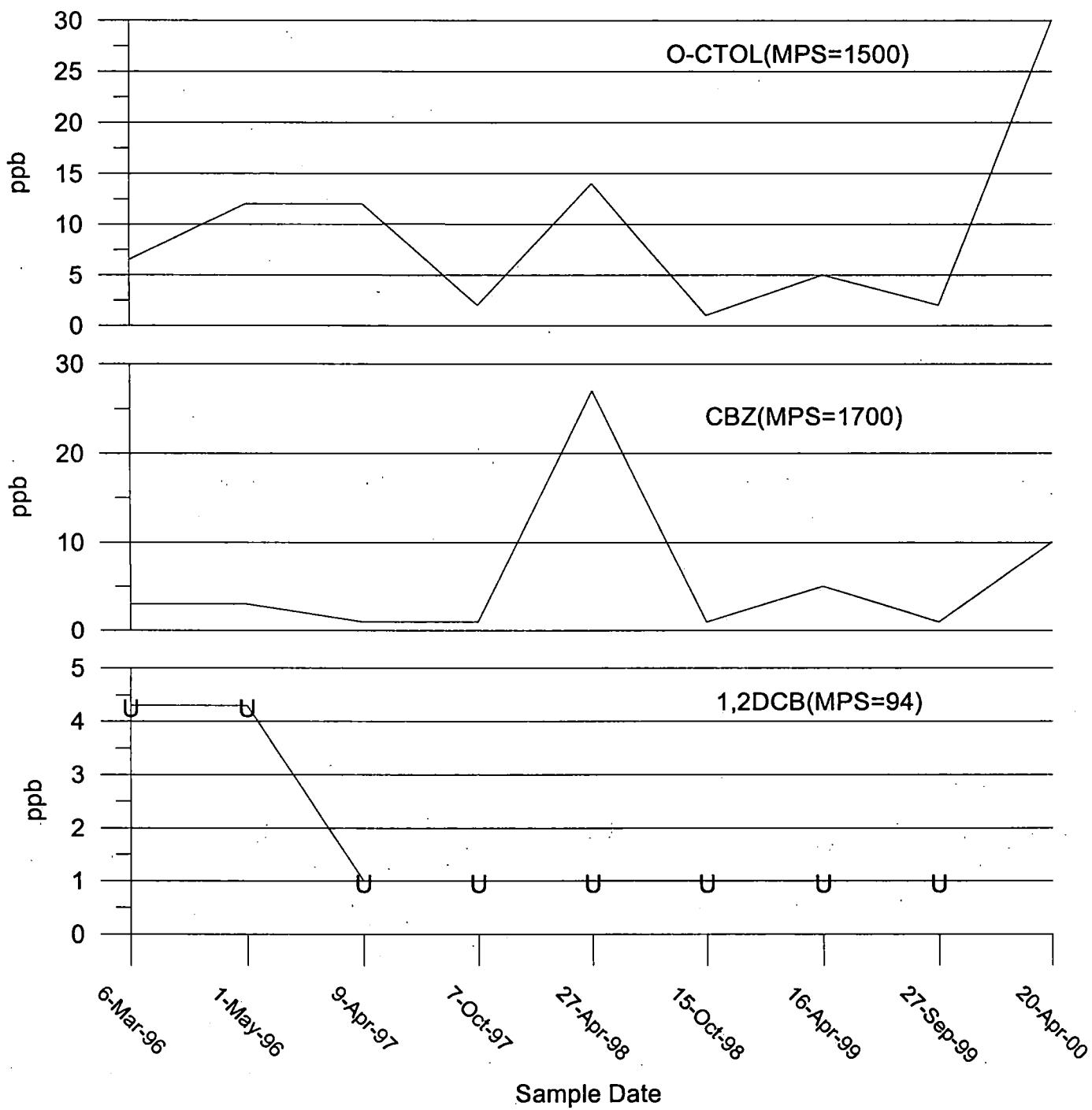
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"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well SW-130
In-River Well

"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.



Ciba Specialty Chemicals Corp
Cranston Rhode Island Facility
Time-Series Graph
Semiannual Monitoring

Well SW-130
In-River Well

"U"=Nondetect
"J"=Estimated Value
MPS=Media Protection Std.

